

KLEIST AND THE SPACE OF COLLAPSE

Jane Madsen

PhD

Bartlett School of Architecture
University College London

I, Jane Louise Madsen confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Abstract

In 1800 the writer Heinrich von Kleist observed that an arch remains standing because its stones all want to collapse at the same time. Rather than being an empirical observation, Kleist's proposition of the collapsing arch as a material object made from cut stone which constructs space, inadvertently became a poetic, and a trope for his later work as it contained the possibility of its own disruption and demise. After reading Kant's critical philosophy Kleist made a traumatic transition from empirical to critical thinking. Kleist represented the potential for collapse through the application of Kant's premise of uncertainty and in the unknowability of truth.

This thesis is practice-based and interdisciplinary. Novalis's poetic, multi-disciplinary, experimental writing is referenced. The central inquiry theorises collapse, uncertainty and experimentation through philosophical, historical, material, architectural and conceptual thinking and in film and video making as experimental practice. Through making 16mm films, videos and still photography I explored and demonstrated collapse on the island of Portland in Dorset, as an uncertain landscape where quarrying and landslips have rendered much of the island as a space that can be viewed as one of collapse. Portland is a site where material histories of place and histories of material in turn can be traced on to the constructed, empty spaces as a disrupted landscape of collapse. The quality of uncertainty pervades the island.

With reference to Kant, the first chapter analyses Kleist's letter about the collapsing arch as a material object and as epistolary philosophy. The second chapter closely examines collapse as architectural, social, material, territorial and spatial in two of Kleist's stories and his compulsion towards the abyss. The third chapter on materiality and collapse at Portland leads back to eighteenth century theories of the earth, histories of geology and architecture, and the use of stone. In the fourth chapter the film and video as situated practice synthesize experimental thinking and practice as a poetic of collapse.

The exploration and experimentation with the concept of collapse in theory and practice aims to demonstrate that collapse as imminence – potential and actual – is internal and external, and that uncertainty creates the conditions of collapse in time and space.

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Introduction

Ich ging an jenem Abend vor dem wichtigsten Tage meins Lebens in Würzburg spazieren. Als die Sonne herabsank war es mir als ob mein Glück unterginge. Mich schauerte wenn ich dachte, daß ich vielleicht von allem scheiden müßte, von allem was mir teuer ist.

Da ging ich, in mich gekehrt, durch das gewölbte Tor sinnend zurück in die Stadt. Warum, dachte ich, sinkt wohl das Gewölbe nicht ein, da es doch keine Stütze hat? Es steht, antwortete ich, weil all Steine auf einmal einstürzen wollen – und ich zog aus diesem Gedanken einen unbeschreiblich erquickenden Trost, der mir bis zu dem entscheidenden Augenblicke immer mit der Hoffnung zur Seite stand, daß auch ich mich halten würde, wenn alles sinken läßt.

Das, mein liebes Minchen, würde mir kein Buch gesagt haben und das nenne ich recht eigentlich lernen von der Natur.¹

Heinrich von Kleist Berlin 16. (und 18.) November 1800 (und Zusatz vom 30. Dez.) 1800

On the evening before that most important day of my life, in Würzburg, I went for a walk. When the sun went down, it seemed as though my happiness were sinking with it. I was horrified to think that I might be forced to part with *everything*, everything of importance to me.

I was walking back to the city, lost in my own thoughts, through an arched gate. Why, I asked myself, does this arch not collapse, since after all it has *no* support? It remains standing, I answered, *because all the stones tend to collapse at the same time* – and from this thought I derived an indescribably heartening consolation, which stayed by me right up to the decisive moment: I too would not collapse, even if all my support were removed!

That, my dear Minna, no book could have told me, and I call it a *true lesson from nature*.²

Heinrich von Kleist, Berlin 16 (and 18) November (and with addition 30 December) 1800

¹ Heinrich von Kleist, *Sämtliche Werke und Briefe*, Herausgegeben von Helmut Sembdner Zweiter Band, (München: Carl Hanser Verlag, 1985), p. 593.

² Heinrich von Kleist, *An Abyss Deep Enough: Letters of Heinrich von Kleist with a selection of Essays and Anecdotes*, trans., ed., and introduced by Philip B. Miller (New York: E.P. Dutton, 1982), p. 76. Letter to Wilhelmine von Zenge, Berlin November 16, 18, 1800. Kleist's emphasis.



o.1 Kleist letter, Sheet 2, page 4.
18 November 1800, drawing added 30 December 1800.
Photograph, Jane Madsen

I. Collapse: uncertainty and experimentation

At the turn of the eighteenth century Heinrich von Kleist (1777–1811) made the observation to his fiancée, Wilhelmine von Zenge, that an arch only remains upright because all its stones want to collapse *at the same time*. At first Kleist's statement about the arch seems an elegantly constructed visual metaphor based on empirical observation; upon further scrutiny, this visualisation of the arch as an experimental allegory raises a series of provocative questions about collapse as philosophy, space, literature, material, territory, and architecture.³ These ideas of collapse are taken and applied to a research project where collapse as a concept is retrieved from Kleist's thinking, analysed in relation to selected pieces of his prose and put in connection with an experimental film practice and the study of a site. The outcome of Kleist's observation that the arch has the potential and capacity for collapse suggests the seeds of this imminent destruction were already planted in the knowable ground of empiricism. If the arch holds collapse in a state of abeyance, does it indicate an uncertain outcome? Does the inevitable corollary of Kleist's visual and architectural image of the collapsing arch foreshadow the collapse of the certainties of empiricism?

The idea of collapse suggests a way of looking, thinking, reading and experimenting conditioned by uncertainty and by time and space. Kleist's speculation about the possible fate of the arch underpins the following inquiries here about the arch as image, object and architecture, geometries of space, threshold and container, the material and materiality of the stones from which it is built, the possibility and uncertainty of vertical and horizontal collapse. The arch is made of parts, of separate elements; it is a whole that does not identify its potential to fragment, or to become fragments. Given these circumstances, I have considered what collapse might look like and how it may be viewed. The questions that have determined this research project have been: how could collapse be represented in practice? How could film and video practice experiment with uncertainty and express the potential of collapse? The research has taken Kleist's thinking about the image, object and concept of the arch to engage with and permeate experiments in material film, video, still photography and animation for exhibition as an installation embodying uncertainty and collapse.

³ I first encountered Kleist's arch metaphor paraphrased in *Heinrich von Kleist: Selected Writings*, ed. and trans. by David Constantine (London: J.M. Dent, 1997), p. xxi. Constantine refers to this quote and mentions Kleist's drawing of the arch. This motivated me to find the Kleist's exact piece of writing and the drawing. This quote was also used in *Selected Prose Heinrich von Kleist*, selected, trans. by Peter Worstman (New York: Archipelago Books, 2010), p. 275. Worstman's afterword 'All Fall Down: The House of Cards of Heinrich von Kleist' pp. 275–88 is a generalized, biographical background to Kleist.

Collapse is a concept that concerns uncertainty, of what may happen imminently or what is in the process of happening as an event in time; it concerns the material disaster and the internal state of being that can only be described with reference to external phenomena. In this study uncertainty is the pre-condition of collapse. By maintaining a connection to Kleist's statement, the continuous referent in this thesis is that collapse may not yet have happened, but collapse might occur at any moment, and it will be – as Kleist said about the stones of the arch – *collapse at the same time*. This occurrence in time is the quality of imminence, and is inhabited by uncertainty. Kleist's construction of the arch went beyond the implications of empirical observation: he intuitively and inadvertently created and constructed an experimental *poesis* or collapse as a poetic. Experimentation, what it is to be experimental, and ways of experimenting has created the means of exploring and testing the thinking of collapse and uncertainty in this research.

This thesis builds a concept of collapse – it is constructed, demonstrated, viewed, found, and made as a philosophical and material poetic. Kleist created the image of the arch as a compelling poetic of collapse; he inhabited the uncertainty of collapse. Kleist's image of the arch that remains standing because the stones constructing it want to collapse holds many questions for architecture, including that collapse is inherent to the construction of an arch, that the mechanism of the arch is an effective engineering structure for addressing the downward thrust of the stones. This pressure on the material object of the arch as an impetus for collapse is dynamic and holds collapse in abeyance. The arch as an architectural construction creates space, makes a void and builds a threshold; it is space that can be traversed, it creates a temporal relationship with the observer and user.

This concept of collapse is demonstrated through interdisciplinary experiments in philosophy, materiality, space, place and site, and brought together as a whole in experimental film, video and photographic installation. The research draws on the disciplines and practices of literature, philosophy, architecture, history, geology, geography, art history, film theory and filmmaking, but does not place one above the other, nor claims total identification with one discipline, but experiments with what can be learned from interdisciplinary thinking. Novalis's experimental *Romantic Encyclopaedia* suggested the structure and organisation of ideas in this thesis where philosophy, poetics and science are arranged non-hierarchically. The main areas of inquiry are collapse, uncertainty and experimentation; they form a triangle⁴ with collapse as the fixed point at the apex, and uncertainty and experimentation completing

⁴ This should be considered as spatial triangulation, rather than the term in social sciences where triangulation is meant as two (or more) methods deployed to test research areas.

the triangle's remaining points, informing, providing and constructing a methodology for thinking about collapse.

Uncertainty: What can we know?

Immanuel Kant's (1724–1804) turn from natural to critical philosophy is central to the development of thought from the middle of the eighteenth century. The progression and process of Kant's thinking is of significance for the manner in which it laid the foundation of modern thought and philosophy. The rapid expansion of German philosophy was the atmosphere of the last two decades of the eighteenth and the first two of the nineteenth centuries – this was the air Kleist breathed. After reading Kant, Kleist dismantled his previously held beliefs concerning empiricism, where truth was demonstrable through meticulous analysis of observed reality. The idea of uncertainty became a means of identifying the loss of empiricism and questioning certainty. Kant had already begun to explore the pre-condition for the transition to critical thinking in his 1764 essay 'Inquiry Concerning the Distinctness of the Principles of Natural Theology and Morality'⁵ where questions of certainty are the prime consideration. The collapse of certainty is a compelling marker for the change of thinking in the latter part of the eighteenth century, as it defines the terms of what is knowable and what is knowledge; that the individual can only be sure of what they alone can see, or what is graspable by their own thinking; this led to the construction of the modern subject.

The discussion of Kant's work does not appear in chronological order in this thesis, but rather in the way that it had an effect on Kleist. Previously for Kleist the accumulation of truth was perfectible and had the potential to lead to a state of purity as a kind of semi-secularized endeavour. Even though there is no definite sense as to which of Kant's critical works he read, it is clear that Kleist was an attentive and careful reader who understood the implications of what he was reading. After reading Kant's *Critique*, Kleist's empiricism collapsed and his interior world imploded; it was an inner collapse, which he could neither refute nor retreat from, since he could not *un-know* or *un-learn* this new knowledge. The unravelling of certainty for Kleist caused him great anguish, and created the conditions under which the artist was formed. Kleist enacted that uncertainty throughout his literary oeuvre. His ominous and uneasy late essay *Über das Marionettentheater* (*On the Marionette Theatre*) (1810),⁶ written less than a year before his death, showed that Kleist continued

⁵ Kant, 'Inquiry Concerning the Distinctness of the Principles of Natural Theology and Morality' 1764, in *Theoretical Philosophy 1755–1770*, trans. by David Walford (Cambridge: Cambridge University Press 1992), pp. 243–86.

⁶ This tends to be translated as 'On the Puppet Theatre', by Philip B. Miller in, *An Abyss Deep Enough*, pp. 211–16, and David Constantine, 'The Puppet

to scrutinize concepts of uncertainty, knowledge and knowingness and is an exploration of Kant's question of what is knowable.⁷

The construction and concept of the modern subject emerging from Kant's *Critiques* was both problematic and productive. Kant's conception questions what is knowable, and shows that certainty cannot stand up to the scrutiny of absolutes. This was explored in different ways. In his critical and schematic study of Johann Fichte (1762–1814), Novalis's (Friedrich von Hardenberg) (1772–1801) commentary revises ideas concerning the modern subject, especially represented in the concept of 'I' and 'Not-I'.⁸ Subsequent to his encounter with Kant's *Critique*, Kleist constructed an analogy showing how someone can only really know the truth of what they see themselves, likening it to wearing green glasses,⁹ but that if the rest of the world were not wearing such glasses what would they see or know? As such, this perspective works against and undermines a universalizing notion of truth, making it relative and uncertain.

Uncertainty: history and the earth

The histories explored in this thesis form a lateral interdisciplinary web as philosophy, literature, architecture, materiality, geology, spatial thinking and film practices. The collapse of certainty occurred when the continent of Europe was refashioned through the political events of war, revolution, crumbling regimes and social upheaval, and also by the profound changes in philosophical thought marked by the publication of Kant's *Critique of Pure Reason* in 1781. Kleist's dates, 1777–1811, coincide with this history, and Kleist's life is completely contained in this period of war and uncertainty. The turmoil of these times created the conditions for change and it is possible to recognize the origins of European thinking in the present. In 1800 Kleist invoked the metaphor about the imminent collapse of the arch, which became an expression of uncertainty. This study originates from that history and the space made by the experiment that he had not intended to make.

Theatre', in *Selected Writings: Heinrich von Kleist*, pp. 411–16. The use of the generalized word puppet rather than marionette is unfortunate, because marionette tends to be understood as the string puppet with jointed arms and legs animated and operated from above by the puppeteer.

⁷ See Kleist, *An Abyss Deep Enough*, pp. 211–16, Constantine pp. 411–16. The essay *Über das Marionetten Theatre* was first published in four instalments from 12 to 15 December 1810 in the daily *Berliner Abendblätter*. Kleist was editor from 1810–11; it was Berlin's first daily newspaper. The Brothers Grimm amassed the most complete collection of it.

⁸ Novalis *Fichte Studies*, ed. and trans. Jane Kneller (Cambridge: Cambridge University Press, 2003) p. 7.

⁹ Kleist, *An Abyss Deep Enough*, p. 95. Letter to Wilhelmine 26 March 1801.

Kleist was a writer and dramatist who was creatively and socially located on the margins of the *Frühromantik* (Early Romantics).¹⁰ He was born in Frankfurt an der Oder where the Kleists were part of the Prussian *Uradel* (ancient nobility) with very longstanding connections to the region, though the fortunes of his part of the family were dwindling. Kleist joined the army at an early age and had resigned his commission by the time he was twenty-one.¹¹ He then studied philosophy, mathematics, economics and law in a desultory way and searched for a meaningful existence before becoming a writer. The entire output of his writing occurred in an intense period of nine years between 1802 and his suicide in 1811. Kleist's bleak, spare and mordant writing and his problematic relationship with the world are intriguingly modern. Kleist's early writing appeared as letters, particularly from 1799 to 1802, traces the time he left the army, became a student, was engaged to Wilhelmine, and travelled through Europe, before acknowledging himself as a writer. The arch letter¹² is analysed in the context of letter writing in the eighteenth century as epistolary empirical philosophy, as drawing and diagram and as material object and artefact. Kleist's arch letter to Wilhelmine is primarily an essay on empiricism, and was written as part of his instruction and contribution to the expansion of her knowledge. Kleist discusses a series of empirical examples, gradually building to the arch metaphor, and concluding that his empirical examples are a 'true lesson from nature.'¹³ Kleist's attachment to what can be empirically learned from nature was an article of faith.

Kant's earliest writings, from 1746 to 1754, place him in the arena of natural philosophy. He wrote commentaries on other natural philosophers and mathematicians, such as Leibniz and Newton. Kant had started to write theories of the earth, when the shocking news of the Lisbon earthquake of 1 November 1755 intruded upon his thoughts. The scale of devastation of a modern capital shocked and disturbed Europe. The outcome for Kant was the series of three essays written between January and April 1756¹⁴ within a few months of the event. The impetus and solemnity of the catastrophe led Kant to systematically evaluate theories of earthquakes and the earth in these essays. One of Kant's recurrent themes was the uncertainty of the foundations of the earth. Kant's work on earthquakes did not produce wholly

¹⁰ This group included Novalis (Friedrich von Hardenberg) (1772–1801), Johann Fichte (1762–1814), Friedrich Schlegel (1772–1829), August Schlegel (1767–1845), Ludwig Tieck (1773–1853), E.T.A. Hoffmann (1776–1822), Friedrich Hölderlin (1770–1843).

¹¹ Kleist was in the army from 1792–99 and took part in the siege of Mainz in the spring and summer of 1793. By Heinrich von Kleist's lifetime his family had produced eighteen generals and a noted poet.

¹² For shorthand purposes I have referred to Kleist's letter to Wilhelmine von Zenge of 16 and 18 November 1800, as the 'arch letter' since it is the main focus.

¹³ Ibid. p. 76. Kleist's emphasis.

¹⁴ Immanuel Kant, *Natural Science*, ed. by Eric Watkins, trans. by Lewis White Beck, Jeffrey B. Edwards, Olaf Reinhardt, Martin Schönfeld and Eric Watkins, (Cambridge: Cambridge University Press, 2012), Chapters 6–8.

original findings or outcomes,¹⁵ nor a viable theory as to their cause. Kant relied on secondary sources. However, the significance was that he developed methods for approaching research in the natural sciences: principally that all the available material on the Lisbon earthquake needed to be evaluated and scrutinized, especially including the accounts of survivors. Crucially, Kant argued that an earthquake was not the punishment of a vengeful god. Oldroyd and Reinhardt¹⁶ note that these essays provide important and valuable insights into Kant's pre-critical thinking and writing.

Kant's three earthquake essays show his methods in the pre-critical phase, and are of historical importance. I argue that Kant applied an empirical method to the material under scrutiny, and that he incrementally progressed from empirical to critical thinking. The transitional writing marking the space between Kant's pre-critical thinking and the critical writing is noted with reference to his essay of 1763, which also returns to the theme of earthquake, 'The Only Possible Argument in Support of a Demonstration of the Existence of God'.¹⁷ This study notes that Kant's natural philosophy, in particular the earthquake essays, are under-investigated, especially in a cultural context, given also that as the first and the third of these essays were only fully translated into English in 2012.¹⁸ As a natural philosopher Kant did not try to amass a totalizing theory of the earth and earthquakes. Kant hypothesized the age of the earth;¹⁹ following the earthquake essays, Kant lectured on geography for forty years, which suggests that he continued to perceive himself as a natural philosopher.

The research for this thesis substantially differs from the considerable literature on the ruin.²⁰ The ruin is not representative of uncertainty, but rather its opposite: the ruin has already happened. The main thread of the discussion on the ruin has been in the history and theory of architecture and art, especially from the eighteenth century onward, in the work of John Soane (1753–1837)²¹ who designed buildings incorporating the future ruin into the

¹⁵ Kant's reliance on the first-hand observations of others has been commented on. However, this situation remains a continuing problem since seismologists are very seldom on site when substantial earthquakes occur.

¹⁶ O. Reinhardt and D. R. Oldroyd, 'Kant's Theory of Earthquakes and Volcanic Action', *Annals of Science* 40:3 (1983), 247–72 (p. 252)

¹⁷ Immanuel Kant, 'The Only Possible Argument in Support of a Demonstration of the Existence of God', in *Theoretical Philosophy 1755–1770*, pp. 107–202.

¹⁸ See Kant, *Natural Science*, pp. 329–36 and pp. 368–73.

¹⁹ O. Reinhardt and D. R. Oldroyd, 'Kant's Thoughts on the Ageing of the Earth', *Annals of Science* 39:4 (1982), 349–69.

²⁰ See Andreas Huyssen, 'Authentic Ruins: Products of Modernity', pp. 17–28 and Alexander Reiger, 'Foundational Ruins: The Lisbon Earthquake and the Sublime', pp. 357–74, in *Ruins of Modernity*, ed. by Julia Hell and Andreas Schönle (Durham, NC: Duke University Press, 2010)

²¹ See 'A Life in Ruins', in Jonathan Hill, *Weather Architecture* (London: Routledge, 2012), pp. 87–108.

form and concept, in the paintings of J.M.W Turner (1775–1851)²² and Caspar David Friedrich (1774–1840), and in the etchings of Giovanni Battista Piranesi (1720–1778)²³ where ruins in the landscape feature in a number of works. Later, the modern ruin was significant to post-World War II reconstruction and is acknowledged in the development of thinking and design in the Brutalist architecture of Alison and Peter Smithson (1928–1993 and 1923–2003).²⁴ Graham Sutherland (1903–1980) and John Piper (1903–1992), both of whom worked as official war artists, depicted ruin as the devastation of bombed cities at home. The World War II concrete ruin was photographed, documented and discussed by Paul Virillio.²⁵ The ruin is dependent on a previous event or events; historically, the ruin has been observed as an aestheticized space to be looked at and contemplated, but one firmly located in a past that cannot be changed. In the ruin the dust has settled, the weeds and the moss have grown, the former building, bridge or construction is no longer what it was, but has become the aggregation and remnant of material in a new and certain form: that of the ruin. The contemplation of the ruin generates ruin thinking as an aesthetic.

2. Experiment: poetics

Experimental ways of thinking, writing and observing emerged during the latter part of the eighteenth century with the post-Kantians, particularly in the philosophy and the poetics of the *Frühromantik* through the use of aphorisms, axioms, anecdotes and fragments.²⁶ The most daring of these emerged in Novalis's experimental work, *Notes for a Romantic Encyclopaedia: Das Allgemeine Brouillon* (*The General Notebook*) (1798–99).²⁷ This

²² Some of this was addressed in Tate Britain's exhibition 'Ruin Lust', 4 March–18 May 2014. Ex. cat. Brian Dillon, *Ruin Lust: Artists' Fascination with Ruins from Turner to the Present Day*, (London: Tate Publishing, 2014). This exhibition was not wholly successful, though the section on eighteenth-century painting and architecture was coherent.

²³ See Tarnya Cooper, 'Forgetting Rome and the Voice of Piranesi's "Speaking Ruins"' in Adrian Forty and Susanne Küchler, eds. *The Art of Forgetting* (Oxford: Berg, 1999)

²⁴ See Jonathan Hill, *Weather Architecture*, 'Submitting to the Seasons', pp. 224–52; which begins with a discussion of the Smithsons and the ruin, and also, 'Ruin' in Stephen Cairns and Jane M. Jacobs, *Buildings Must Die: A Perverse View of Architecture* (Cambridge, MA: MIT Press, 2014), pp. 167–91.

²⁵ Paul Virillio, *Bunker Archaeology* (New York: Princeton Architectural Press, 1994)

²⁶ This group included Novalis and Friedrich Schlegel. Kleist's anecdotes as well as his essays, shorter writings and reviews appeared in the *Berliner Abendblätter*. His anecdotes are roughly contemporary and reflected human fallibility during war. See for example 'From the Last Prussian War', which refers to the Battle of Jena in 1806, in *An Abyss Deep Enough*, p. 264–65. Kleist's anecdotes were short spare pieces of prose and were significant for later writers such as Nietzsche; Kafka wrote an introduction when they were collected together and published.

²⁷ Novalis, *Notes for a Romantic Encyclopaedia: Das Allgemeine Brouillon*, trans., ed., and introduction by David Wood (Albany: State University of New York Press, 2007)

remarkable work suggested a method of approaching the interdisciplinary themes in this study. The unique structure of Novalis's unfinished *Notes for a Romantic Encyclopaedia* was built around a configuration where mathematics, mineralogy, natural history, physics, chemistry, medicine, science, logic, organology, psychology, archaeology, poetics, art, philosophy, literature, and many more²⁸ including his own construction, 'encyclopdeistics', are organized and arranged as multiple, crystalline facets of knowledge interconnected and non-hierarchical, where each form of knowledge is given equal importance and status.²⁹ This demonstrated the scope and depth of Novalis's thinking and understanding; he was unusual among the Jena Romantics because he was qualified in engineering, science, philosophy and law. Notwithstanding its unfinished form, the idea of equivalence given to each subject discipline was in place before he stopped working on it. *Notes for a Romantic Encyclopaedia* is a work that is extraordinary and unclassifiable.

Practice underpinned the whole concept of Novalis's idea for the Encyclopaedia. His sense of himself as a practitioner was developed during his practical study of mineralogy and training as a mining engineer in the field alongside the study of current scientific theory at Freiberg Mining Academy. The link between theory and practice is also present in his experimental poetic, natural-philosophic novel *Die Lehrlinge zu Sais* (*The Novices of Sais*) (1797–1800), written at Freiberg, and also unfinished.

Novalis's experimental, interdisciplinary approach to writing and thinking in the *Romantic Encyclopaedia* was unique, but it remained unfinished and many of the entries were in note form. However, this kind of interdisciplinary writing appearing as it did in the very last years of the eighteenth and in the first decade of the nineteenth centuries would be curtailed – supplanted by the sense of progress of the nineteenth and early twentieth centuries, where the singular expertise of professionalization emerged in precisely determined fields of knowledge. It was not until the aftermath of the First World War brought about changes to thinking and the questioning of unifying authority, that concepts applying interdisciplinary or trans-disciplinary approaches re-emerged as philosophical, literary, social, historical and cultural analysis.³⁰

²⁸ Novalis listed more than one hundred and fifty disciplines or categories in 1151 entries.

²⁹ Novalis's *Notes for a Romantic Encyclopaedia* was informed by Denis Diderot's and Jean le Rond D'Alembert's seventeen volume *Encyclopédie* published from 1751–65, which had been considerably developed and expanded from an initial translation of Ephraim Chambers's *Cyclopaedia; or an Universal dictionary of arts and sciences* 1728. The *Encyclopédie* constructed and charted universal knowledge in the arts and sciences in alphabetical order. Novalis's aspiration and organization differed from these previous encyclopaedias because it sought to construct knowledge as non-hierarchical.

³⁰ To some extent this can be seen in works such as, Walter Benjamin's *The Arcades Project*, trans. by Howard Eiland and Kevin McLaughlin (Cambridge, Massachusetts: The Belknap Press, Harvard University, 2002); or more recently in Mieke Bal's *Travelling Concepts in the Humanities: a rough guide*, (Toronto:

Experimentation in any field involves the risk that the experiment may go wrong, or produce unwanted results, may fall apart or fail. Novalis was aware of the conditions of experimentation, and in the *Romantic Encyclopaedia* he repeatedly questions the methods of experiment, as in the entries:

528. LOGIC ETC. Just as I must bring a general idea—an ideal schema of experimenting to *experimenting* itself—and a rough schematic *hypothesis*—so for demonstrating and ideal experimenting, I must also have as a basis—a *rough*—determinable—*attractive*—and objective schema. The *subjective imagination* supplies the former—the *objective imagination* the latter. A plan is a *subjective schema*. As the ideal and real experiment progresses—the *schema* becomes *more diverse*—and more harmoniously—determined—and conversely, with the completion and elevation of the schema, the experiment becomes ever clearer, of a more varied and higher degree. [...]

529. THEORY OF THE EXPERIMENT [...] The process of observation is at once a subjective and objective process—both an *ideal* and *real* experiment. Both the proposition and product must be completed if it is to be truly perfect. If the observed object is already a *proposition*, and the process thoroughly conceptualized—then the resulting proof is *the same proposition, but at a higher degree*.³¹

For Novalis the terms of experimentation were under constant scrutiny. The schema did not seek to scatter or divide the elements or regard them as separated fragments, but rather that they would be arranged in dynamic sequential arrangements. The latter entry, 529, concerns material and chemical experiments; it is based both in practice and on the conceptual notions of experimenting and the experimental, as well as on what is ventured and discovered through experimentation. Central to the *Romantic Encyclopaedia* was Novalis's recurring concept of what it was to romanticize, of how thought is elevated through creative processes derived from mathematics as 'potentization', or the raising to a higher degree. In entry 717, Novalis articulates this as:

The diversity of the methods increases—the thinker eventually knows how to make everything, out of *each thing*—the philosopher becomes a poet. The *poet* is but the highest degree of the thinker, or senser etc. (Degrees of a poet.)³²

University of Toronto Press, 2002)

³¹ Novalis *Notes for a Romantic Encyclopaedia*, p. 94. In this entry (529) Novalis discusses theories of experimentation with critical reference to Abraham Werner's system of mineralogy classification.

³² Ibid. p. 132.

The concept of poetics suggested by Novalis and Friedrich Schlegel (1772–1829) characterized poetics through the concept of ‘*romantische Poesie*’ as an entire entity, not so much as the synthesis of the work of art, but the thinking, making and construction of the work, which Frederick Beiser notes returned to Aristotle’s foundation that ‘[...] poetic (*poietikós*) was that which pertains to making or creating something’.³³ In the Aristotelian sense, poetics is presented as a skill, as *tekhnê* – the means, the idea and the experience of the construction,³⁴ and it is this understanding and meaning of poetics that I apply throughout this thesis.³⁵

Kleist was on the margins of Romanticism, especially of the *Frühromantik* (Early Romantic) period from about 1794 to 1808³⁶ both intellectually and personally. Poetics was not a concept that Kleist acknowledged, though he would have been aware of the ideas of *poesie* through his knowledge of Novalis’s published and unpublished writings. In general, Kleist³⁷ is either erroneously linked to the previous generation of *Sturm und Drang* writers, active from the mid-1760s to the end of the 1770s, or with the *Frühromantik*.³⁸ However, neither of these categories defines Kleist’s writing. In addition, his work does not correspond to the classicism of Johann Wolfgang von Goethe (1749–1832) or Friedrich Schiller (1759–1805), although some of his plays were set in antiquity; for example, in *Penthesilea* (1807),

³³ Frederick C. Beiser, *The Romantic Imperative: the Concept of Early German Romanticism* (Cambridge, MA: Harvard University Press, 2003), p. 16.

³⁴ See: Aristotle, *Poetics* (London: Penguin, 1996), and, Aristotle, *The Metaphysics*, trans. and introduced Hugh Lawson-Tancred (London: Penguin, 2004), Book Alpha I, pp. 4–6.

³⁵ For example the contemporary use and understanding of poetics, especially as it is analysed and applied in the field of semiotics and structural linguistics, while an area of considerable scholarship, would not be effective here. These themes are explored by Umberto Eco in ‘Analysis of Poetic Language’ and ‘The Poetics of the Open Work’ in *The Open Work*, trans. Anna Cancogni (London: Hutchinson Radius, 1989), Tzvetan Todorov in *Introduction to Poetics* (Brighton: Harvester, 1981), Kristen Kreider in *Poetics + Place: The Architecture of Sign, Subjects + Site* (London: I.B.Tauris, 2014), and in Roland Barthes *The Pleasure of the Text*, trans. Richard Miller (New York: Hill and Wang, 1975) where Barthes plays with the pleasure of literary form of prose and the novel in a poetic way.

³⁶ Manfred Frank suggests these dates in *The Philosophical Foundations of Early German Romanticism*, trans. and introduced by Elizabeth Millán-Zaibert (Albany: State University of New York Press, 2004), p. ix.

³⁷ Kleist is not well known outside of German language readership. The prestigious literary award, the ‘Kleist prize’ commenced on the centenary of his death; recipients have included Bertholt Brecht and Alexander Kluge.

³⁸ There is much that differentiates Kleist from Romanticism – he is less concerned with questions of being and is also not concerned with the representation and power of aesthetics and allegory; there is no connection to Fichte’s reconfiguration of Kant and little direct inquiry into the modern subject – all of which were of importance to *Frühromantik*. Kleist diverges from Friedrich Schlegel’s position on poetry and *poesis* as a totality of thought, culture and construction presented in *Athenäumsfragment* 116; in J.M. Bernstein, ed. *Classic and Romantic German Aesthetics* (Cambridge: Cambridge University Press, 2003), pp. 249–50. See also: Manfred Frank, *The Philosophical Foundations of Early German Romanticism*; and, Frederick C. Beiser, *The Romantic Imperative: the Concept of Early German Romanticism*.

Der zerbrochene Krug (*The Broken Jug*) (1808) and *Amphirion* (1807) Kleist subverted the classicism of Goethe and Schiller. Though Kleist is better known as a playwright, the stories and novellas were spare and experimental and dealt with difficult subjects, which further placed him on the literary margins.

Experiment: practice[s]

Embarking on a thesis located in the territory of practice-based research has necessitated questioning, engaging and experimenting with it as a form; consequently, practice resists accepted orthodoxies of research. This finds correspondence with Ruiz's comments in *The Poetics of Cinema* (1995) about how avant-garde film, artists' film or experimental film are constantly [re]inventing the form, that his interest lay '[...] in films, which wherever they occur, are in some sense unique'.³⁹

The aim to find and demonstrate a visual equivalent of the concept of collapse was key to this research. This led to recalling a visit to the island of Portland on Dorset's Jurassic coast in 1999. What was so striking about Portland is that it is a material and visual manifestation of disruption and collapse. At Portland, collapse is integral to the outward appearance of the landscape and is embedded in the geomorphology of its limestone. Portland is not an aestheticized place for looking at past events, but is the continuing collapse of more than three centuries of quarrying, as well as coastal collapse occurring over millennia. Portland's landscape is a constructed environment that can be read visually and architecturally. Developed as situated research and practice,⁴⁰ analogue film was shot on the island; it experimented with the surface of stone and film as material. During this research I encountered the work Robert Smithson made at Portland and Chesil Beach in 1969, which was part of his *Mirror Displacement* series.⁴¹ Smithson's writings about materiality and landscape were of considerable

³⁹ Raúl Ruiz, *Poetics of Cinema* (Paris, Éditions Dis Voir, 1995) p. 77; also see 'For a Shamanic Cinema' pp.73–90, where he further elaborates 'one-of-a-kind-cinema.'

⁴⁰ The term 'situated' research and practice derives from two intersecting sources: firstly fine art, especially when sculptors moved their practices out of the studio making work as 'site-specific', where the artwork is either made, installed or located in one place, or working serially in similar places, such as Richard Long and Robert Smithson; and secondly, from filmmakers who worked with a poetic sense of place, such as Jonas Mekas, Margaret Tait, and Chris Welsby; and also in expanded cinema where experimental filmmakers broke out of the two dimensionality of the cinema screen through performance and the installation of film in galleries. See: Nick Kaye, *Site Specific Art: Performance, Place and Documentation* (London: Routledge, 2007), Miwon Kwon, *One Place after Another: Site-Specific Art and Locational Identity* (Cambridge, MA: MIT Press, 2004), Gene Youngblood, *Expanded Cinema* (New York: Dutton, 1970), A.L. Rees, Dave Curtis, Duncan White, Steven Ball eds., *Expanded Cinema: art, performance, film* (Tate Publications: London, 2011).

⁴¹ See: Robert Smithson, 'Incidents of Mirror-Travel in the Yucatan' written for *Artforum* (September 1969). Published as photographs and essay. Reprinted in Robert Smithson, *Robert Smithson: The Collected Writings*, ed. by Jack Flam (Berkeley: University of California Press, 1996), pp. 119–33. The mirror

interest;⁴² I was especially fascinated by his interest in quarries, which suggested ways of looking at the space of quarries as post-industrial sites appropriate to the context of collapse.

Tracing the use of stone for architecture led back to the materiality of the stones used to construct Kleist's arch; the latter was possibly made from stone similar to the limestone at Portland. The stones of Kleist's unknown arch, which stood somewhere in Berlin, were probably quarried in Germany. The arch would have been very difficult to identify and in all likelihood it may have been demolished or had collapsed long ago. Following the use and application of natural scientific knowledge drawn from elsewhere by Kant and Novalis, the knowledge gained from the material, architectural, geological and scientific histories of Portland stone has been transported and connected to the thinking in natural philosophy from late eighteenth-century Germany

The concept of collapse is explored and shown in experimental practices of moving image using 16mm film and digital video, stills and animation as visual poetics, all demonstrated by situating and focussing the practice at Portland. Collapse is also shown in the videos made at the sites of Kleist's birth and death. Film and video is used to explore these landscapes as spatialized collapse. Time and space are constructed through moving image as a poetics of collapse. These spaces of absence are contemplated and given visual form in films, videos and installation. The 16mm films made at Portland explore collapse as a visual poetic through the transience of film and its disappearance as a collapsing technology.

But what of the process of making itself? This is explored through filming the quarries as contemplative voids carved into the landscape, and the cliff faces as sites of potential collapse. The spaces of the quarries are built environments that construct emptiness. This is a material and tangible application of collapse in space and time derived from Kant, reached through Kleist's identification of collapse, and particularly the concept of uncertainty: Portland's industrialized landscape, scarred from the effects of quarrying, is an uncertain place. It is impossible to return to the same island, as each time it has been changed by quarrying and taking away its stone, as well as through the collapse of its cliffs. In his novel about the island, *The Well-Beloved: A Sketch of Temperament* (1898), Thomas Hardy asked if the island could be eaten all away.⁴³ The connection of piece from Portland was included in the exhibition *Prospect 69* held from 30 September to 12 October, in Dusseldorf, at the Städtische Kusthalle. The work Smithson did during his short visit to England and Wales in 1969 is intriguing, however I have not undertaken a substantial interaction with it in the experimental film practice in this thesis. Even if I had wanted to engage with these works, it would have been difficult to make effective experimental film work using mirrors, since by the end of the 1970s experimental filmmakers in Britain and America had already overused mirrors.

⁴² Smithson, *Robert Smithson: The Collected Writings*.

⁴³ Hardy, *The Well-Beloved: A Sketch of Temperament* (London: Everyman, 1997)

space and place are important to practice and to thinking about collapse as a situated filmic inquiry. The work and practice of making space will be further discussed by turning to Edward Casey's *The Fate of Place* (1997)⁴⁴ through the concept of the container and the limit.

Experiment: situating practice

The legacy of three tendencies of experimental and avant-garde film informed my practice. Firstly, the experimental films made by artists and poets from the late 1940s to 1970s: Jonas Mekas, Joseph Cornell, Andy Warhol, Stan Brakhage, Maya Deren, Kenneth Anger, Margaret Tait and Chris Welsby. The poetics of place is ingrained in the work of Cornell, Mekas and Welsby; Cornell collected film material by sending filmmakers out to film for him and Mekas made the work by taking the camera out and allowing the situation encountered to determine what was filmed, whilst Welsby worked with landscape and time. Most of these filmmakers used a Bolex, the Swiss clockwork 16mm camera that was the cornerstone of experimental film at the New York Filmmakers Co-Operative, London Filmmakers Co-Operative and elsewhere. Secondly, in the legacy of the radical European film movements particularly of the New German Cinema including such filmmakers as Alexander Kluge, Jean-Marie Straub and Danièle Huillet.⁴⁵ Thirdly, in the poetic and experimental documentaries of the GPO and Crown film units of the 1930s and 1940s, particularly those by Humphrey Jennings and Len Lye, and in the political essay documentaries of the British film workshop movement of the 1970s and 1980s. The majority of this work is linked by a common thread of exploring the visual language of experimental film as one of poetics and politics. The key text that discussed experimental film as art by bringing together the avant-gardes of early European Dada and Surrealist cinema with post-war American experimental film, and began the debate on structural film, was P. Adams Sitney's *Visionary Film* (1974).⁴⁶ The term 'experimental film'

⁴⁴ Edward S. Casey, *The Fate of Place* (Berkeley: University of California Press, 1997)

⁴⁵ The number adaptations of Kleist's stories and plays, especially those made by New German Cinema film directors, show the continuation of Kleist's experimental legacy. For example, Hans Jürgen Syberberg *San Domingo* (1972), *Penthesilea* (1988), *Die Marquise von O-* (1989), and *Die Nacht* (1985) (installation including readings from Kleist and the Early Romantics) and from other European art cinemas, Laura Mulvey and Peter Wollen *Penthesilea* (1974), Éric Rohmer *The Marquise of O* (1976), *Catherine de Heilbronn* (1980).

⁴⁶ P. Adams Sitney, *Visionary Film: The American Avant-Garde* (Oxford: Oxford University Press, 1974). Other important texts were, Lenny Lipton, *Independent Filmmaking*, introduced by Stan Brakhage (New York: Simon & Schuster, 1972), which was the handbook for experimental filmmakers; and the exhibition catalogue, *Film as Film: formal experiment in film 1910-1975*, (Arts Council of Great Britain: Hayward Gallery, South Bank, London, SE1. 3 May-17 June 1979). Journals have always been important to this field, especially: *Framework* 1974-92, initially published from Warwick University, later University of East Anglia; also *Screen* 1969- to present, especially the

does not define a particular movement or a historical movement, but describes a general approach to filmmaking and is problematic, hence Sitney suggests that the terms ‘experimental’ and ‘film poems’ are ‘inaccurate and limiting’⁴⁷ as are the terms ‘underground’, ‘avant-garde’ and ‘auteur’.⁴⁸

In experimental film the Bolex camera generated inconsistencies in the movement of the film through the camera, and made possible in-camera techniques such as double exposures, dissolves, fades to black or white; it was also used for analogue methods, such as optical printing – all of which created a painterly aesthetic developed from an economy of means. In all these processes the uncertainties of the Bolex are pushed to the limit, and the filmmaker courts disaster, or looks for the unexpected lucky accident. The visual accident is an analogue process not unique to film, and is present in other art forms, whether painting, print making, drawing or photography. In moving image the accidental cannot be programmed – the attempts to make filmic effects such as putting film-like scratches by programming them into digital video formats looks too contrived and precise. Unlike large-scale mainstream productions, experimental filmmakers, especially from the 1960s onwards, tended to have the luxury of time, even if they did not have money, adding to films incrementally over a long time span, or spontaneously making a piece in a day, or in the time it took to make a performance.⁴⁹

My previous experience in film editing shaped the development of my visual thinking and film practice. I reflect on the work of women editors with particular reference to Yelizaveta Svilova (1900–1975), who edited *Man with a Movie Camera* (1929), and Danièle Huillet (1936–2006) who was principal editor of the films she made collaboratively with Jean-Marie Straub from 1963 to 2006. Eisenstein’s theories of montage are also of significance. He analysed the way editing gave a new thought to images ‘[...] the juxtaposition of two separate shots by splicing them together resembles not so much a simple sum of one shot plus another shot – as it does a *creation*.’⁵⁰ The process of analogue film editing has its own thinking and material practice, which is distinct from digital editing.

collections: John Ellis, ed., *Screen Reader I: cinema/ideology/politics* (London: SEFT, 1977); and Mick Eaton and Steve Neale, eds., *Screen Reader II: cinema & semiotics*, (London: SEFT, 1981). The journals specifically, by and, about experimental film and filmmakers were: *Cantrills Filmnotes* published from 1971–2000; and *Undercut* from the London Filmmakers Co-Op, published in 19 issues from 1981–90, the Special Issue on Landscape in Film, Photography and Video, Number 7/8 Spring (1983) was of considerable interest.

⁴⁷ Sitney *Visionary Film* p. vii.

⁴⁸ Ibid. p. viii

⁴⁹ See for example, Bruce Nauman’s performance in the studio *Dance or Walk on the Perimeter of a Square* 1967, or Bas Jan Ader’s performance films, where he falls down into a canal, out of a tree, off a roof and so on. Bas Jan Ader later disappeared at sea in 1972 while trying to sail the smallest boat possible across the Atlantic. Ader’s oeuvre could be interpreted as demonstrating collapse. See: www.ubu.com/film

⁵⁰ Serge Eisenstein, *The Film Sense* (London: Faber and Faber, 1943), p. 17.

The practice of film editing, where the original film material generated is cut and assembled into the finished film work, also suggested an analogous interpretation to the physical process and work of the stonemason, where each stone is cut and prepared and made to fit the construction (of the arch) creating the final object.

The contemporary practical difficulty of confronting the end of the medium and material of celluloid analogue film is discussed. The meaning and scale of that collapse is considered, especially in the idea that film was the art form of the twentieth century and its materiality was part of that history. This is discussed with reference to Walter Benjamin's 1936 essay 'The Work of Art in the Age of Mechanical Reproduction'⁵¹ and how artists' films from the 1920s and 1930s may have already started to question Benjamin's terms as to what mechanical reproduction might mean.

Experiment: materiality and film

As far as possible, following the example of Smithson, Mekas and Wellsby, I have tried to have an immersive relationship to the site, of being there and allowing Portland to seep into conscious and unconscious formations. In doing so I found more and more connections between the site and the period of time at the end of the eighteenth century when Kleist was writing and European thinking was changing. In this sense, Portland as a small island of approximately 4.4 square miles became a kind of situated laboratory for experimental thought, philosophy, history, and visual practices. Paul Carter's *Material Thinking* (2004) identifies the questions emerging from practice; in particular, he analyses how material thinking is a collaboration between the artist and the material.⁵² The process of situated practice-based research at Portland has been the means to visualize landscape differently – it is no longer a lateral horizontal surface that light falls on, but is now inflected with volume, of what lies beneath, of geological formations, of what is stable and uncertain.

The practice comes together as an installation comprising 16mm film works, stills and digital video. The 16mm films are *Portland Nos. 2 – 5 (North of Wallsend Cove to Mutton Cove, Portland Bill, West Weares, Independent Quarry, Tout Quarry)* (2010–2012) and *Off Cuts: Portland 3f.* (2013). *Portland Nos. 2 – 5*, depicting cliffs and quarries, is shown on two continuously running projectors. The time-based medium of moving image is used to survey Portland as place and material inscribed by time. The installation shows technical and material images of the stone, the spaces left behind in the quarries, and the geology of the cracks

⁵¹ Walter Benjamin, *Illuminations*, ed. and introduced by Hannah Arendt, trans. by Harry Zohn, (London: Fontana, 1982), pp. 219–53

⁵² See: Paul Carter, *Material Thinking* (Melbourne: Melbourne University Press, 2004), pp. xi, 7, 10–15.

in the limestone cliff faces – these are viewed as sites of imminent or potential collapse. In the mechanics of the film repeatedly running through the projector, scratches and marks appear, scarring the surface of the film, which deteriorates and breaks down: collapse occurs in time and in the presence of the viewer as the uncertainty of a vanishing and fragile medium.

Off Cuts: Portland 3f is an installation comprising 80 glass-mounted slides that contain three frames of 16mm film. These fragments of film are treated as specimens in a quasi-scientific manner: the film is mounted and preserved as though it were a rare example. This piece is an archive and archaeology of film. The 35 mm slides and projector used are material and equipment also in decline. This work has its origins in the editing process as it is made from the remnants of film, of the trims generated during editing. The projected slides create a monument to the collapse of celluloid film. *Nicodemus Knob Panorama* (2012/2015) comprises twenty-four 6x6 slide stills mounted between sheets of perspex in a light box which is another form of film projection. Quarrymen left the pillar of stone, known as Nicodemus Knob, in the disused seventeenth century Waycroft and Kingbarrow quarries in order to show how much stone had been quarried away. The fractured and fragmentary panorama represents collapse as absence. The film *Das Gewölbe 1800 (The Arch 1800)* (2012/2015) is a two minute animation based on Kleist's pencil drawing of the arch.⁵³ Kleist's drawing of the arch is enlarged and traced on to cells, and then animated by filming each one a frame at a time. When projected, it creates lines of febrile movement because each cell is individually drawn. This movement of the arch drawing, which is bisected by a conceptual line, captures the uncertainty of imminent collapse.

Two videos were made in Germany: one in the city where Kleist was born, and the second at the place where he died. The use of video allowed for shots of a longer duration than is possible with the 16mm Bolex camera. The first video, *Die Insel Ziegenwerder, Frankfurt an der Oder (The Goat River Island)* 2013, is five minutes in duration and was shot on a small, bleak island on the Oder, is a reflection on Kleist's restless wandering. The only sound is that of the atmosphere of the river and footsteps. The second video, *Kleist Grabe, Kleiner Wansee (Kleist Grave, Lesser Wansee)* (2013), is four minutes in duration and documents the grave of Henrich von Kleist and Henriette Vogel at Kleine Wansee. This is the same place where they died in a suicide pact on 21 November 1811. It is raining, the sound of the raindrops adds to the melancholy atmosphere at the place of Kleist's final collapse. The voice-over is from Ferdinand Grimm's writing about visiting and tending Kleist's grave. These videos experiment with Kleist's wavering spirit and the sense of the abyss as spatialized collapse.

⁵³ Added: 30 December 1800, letter to Wilhelmine 16 and 18 November 1800.

3. Forms of Collapse

Collapse as imminent possibility, event, and material disaster occurring in time and space is the central theme and determining concept of this thesis. Uncertainty and experimentation are established as the means of exploring and elaborating a concept of collapse. The forms of collapse identified and worked with are philosophical, spatial and material; *form* is intended and meant throughout as both as a typology and, significantly, in its fine art and film applications through material construction and destruction, drawing, thinking and experimentation. These forms occur as: the collapse of certainty after Kleist read Kant's *Critique*; literary collapse as the failure of Kleist's *lebensplan* and as the determination to become a writer; material collapse and architecture, not just as the possible collapse of the arch itself but in the disastrous collapse of a city following an earthquake, explored in Kleist's experiments with Kantian thinking represented in *Erdbeben in Chili* (*Earthquake in Chili*) (1807) and in the geography of horizontal collapse as disputed territory in the novella *Michael Kohlhaas* (1808 and 1810), the spatial and abyssal collapse of Kleist's early death; and as material and temporal collapse represented and demonstrated through located film practice and stills in the quarries and landscape of Portland, in videos of German landscape, and an animation of the image of the arch, all of which are brought together as an installation contemplating collapse.

Collapse: spatial geometry

The space constructed by the arch, which may imminently collapse, suggested an interpretation of the geometry of the arch. In the absence of knowing precisely which of Kant's writings Kleist read, I have focused on the 'Transcendental Aesthetic' in the *Critique of Pure Reason*,⁵⁴ and argue that the themes of time and space are appropriate to an analysis of the Kleist's metaphor and drawing of the arch. The idea of the imminence of collapse, not only of the arch, is also explored as uncertainty. While the 'Transcendental Aesthetic' in the *Critique of Pure Reason* is out of chronological order in terms of Kant's writing, the analysis followed the order suggested in Kleist's letter where the arch metaphor was proposed.

The secondary philosophy sources referred to give further historical, philosophical and cultural context to Kant and Kleist. I have referred to Nietzsche's critique of Kant in relation to Kleist. With reference to the geometry of space and the arch I consider Giorgio Agamben's very short piece on the

⁵⁴ Immanuel Kant, *Critique of Pure Reason*, trans. and ed. by Paul Guyer and Allen Wood (Cambridge: Cambridge University Press, 2005)

threshold,⁵⁵ which questions and responds to Kant's thoughts on the limit (*Schranke*) and threshold (*Grenze*). Edward Casey's⁵⁶ theories of place and the geometries of space, boundary and limit were relevant to the analysis of the geometries suggested by the space of the arch. Kleist's recurrent motif of the abyss has been analysed as a concept of definite and indefinite space, of an uncertain container, and one deeply connected to and demarcating spatialized collapse.

Collapse: foundational

Two of Kleist's prose works, *Das Erdbeben in Chili* and *Michael Kohlhaas*, are analysed as representing and experimenting with collapse. In these stories the foundations of the world his characters stand on are shown to be uncertain and capable of collapse. These two stories were drawn from real historical events; they have the matter-of-fact quality of anecdote and Kleist documents the collapse and death of his main characters in a mordant and experimental way, where collapse is the inexorable conclusion of external events.⁵⁷

The historic catastrophe of the Lisbon earthquake in 1755, when a contemporary, rich European capital collapsed in moments, was a decisive harbinger for the beginning of a period of terrible uncertainty that ultimately transformed Europe. During the period from 1755 until Kleist's death in 1811 Europe was beset with uncertainty. Kant's earthquake essays are discussed in detail in connection to Kleist's *Das Erdbeben in Chili*, written in 1807. Even though *Das Erdbeben in Chili* was written fifty years after the Lisbon earthquake, it is intriguing that Kleist chose to return to it. This story investigates the lead-up and outcome of the vertical collapse of a city following earthquake and the collapse of architecture, social order, and morality, as well as the consequences for the life and death of two individuals.

The concept of collapse – spatial, geographical and horizontal – is analysed in Kleist's *Michael Kohlhaas*. The collapse represented in this 1810⁵⁸ novella is temporal and horizontal and happens when the eponymous character traverses a previously unregulated border between two states, Brandenburg and Saxony, where the imposition of unfairly and arbitrarily applied law causes the circumstances for Kohlhaas's political and personal collapse. The novella

⁵⁵ Giorgio Agamben, *The Coming Community*, trans. Michael Hardt, Theory out of Bounds, Volume 1 (Minneapolis: University of Minnesota Press, 2003) p. 67–68.

⁵⁶ Casey, *The Fate of Place*, p. 63.

⁵⁷ This is different to the swooning collapse in his best-known novella, *Die Marquise von O-* (1808), in which collapse is apparently internal and subjective but is actually based on secrets, duplicity and concealment.

⁵⁸ Kleist wrote *Michael Kohlhaas* 1808 then revised it, adding a different ending in 1810.

is an exploration of uncertainty, as opposed to the interior, subjective state of Kohlhaas's being. The terrain becomes the cause and the object of dispute, and I analyse this with reference to Kant's writing on geography, published in revised translations in Kant *Natural Science* (2012)⁵⁹ and with reference to its later interpretation in the secondary literature of Stuart Elden and Eduardo Mendieta's *Reading Kant's Geography* (2011).⁶⁰ The history of territory as a legal and politicized terrain is analysed with reference to Elden's *Birth of Territory* (2013)⁶¹ a historical account of the rise of law over land and territory. Philosophies of space and place as horizontal terrain and bounded containers are discussed in conjunction with Casey's⁶² theories of boundary and limit; and Jeff Malpas and Karsten Thiel⁶³ confirmed concepts of place, space, and topology in Kant's ideas on geography. The spatialized contestation of terrain in Kleist's *Michael Kohlhaas* also involved considering Kant's political writing and the contemporary response by Friedrich Schlegel, as well as referencing Michel Foucault on geography and politics.⁶⁴

Gilles Deleuze and Felix Guattari's construction of the concept of the 'war machine'⁶⁵ referred to *Michael Kohlhaas* and Kleist. The 'war machine' is a broad philosophical and poetic concept about war as the function and representation of state apparatus as it grinds itself out over a non-defined horizontal plane. The 'war machine' appears to offer much to the study of Kleist's narrative themes, but it is overwrought and the interpretive depth this powerful image promises is compromised – since during Kleist's entire (short) writing career there was no other reality than a time of war. Other apparently Kleistian thinking was suggested by such references as Maurice Blanchot's *Writing the Disaster* (1995), but its circularity and sense of looking at the disaster after it had occurred brought Blanchot's ideas of the disaster closer to the ruin than the imminence of collapse, where collapse occurs as spatial, temporal, visual and material. Later writers and philosophers wrote about Kleist: Nietzsche, Benjamin, Kafka and Robert Walser.⁶⁶ Contemporary

⁵⁹ Ibid. pp. 'Physical Geography', pp. 439–682.

⁶⁰ Stuart Elden and Eduardo Mendieta, eds., *Reading Kant's Geography* (Albany: State University of New York, 2011)

⁶¹ Stuart Elden, *The Birth of Territory* (Chicago: University of Chicago Press, 2013)

⁶² Casey, *The Fate of Place*, p. 63.

⁶³ Jeff Malpas and Karsten Thiel, 'Kant's Geography of Reason' in Elden and Mendieta *Reading Kant's Geography*, pp. 195–214 (pp. 206–10).

⁶⁴ See: Jeremy W. Crampton and Stuart Elden, eds., *Space, Knowledge and Power: Foucault and Geography* (Aldershot: Ashgate, 2007); and Michel Foucault, 'Course Summary', in "Society Must be Defended": *Lectures at the Collège de France 1975–76*, trans. by David Macey (London: Penguin Books, 2004), Immanuel Kant, *Kant: Political Writings*, ed. by Hans Reiss. trans. by H.B. Nisbet (Cambridge: Cambridge University Press, 1991), and Frederick C. Beiser, ed., *The Early Political Writings of the German Romantics*, trans. Frederick C. Beiser (Cambridge: Cambridge University Press, 1996)

⁶⁵ See Gilles Deleuze and Felix Guattari, *A Thousand Plateaus* (Minneapolis: University of Minnesota Press, 1994), pp. 351–56.

⁶⁶ Friedrich Nietzsche, *Untimely Meditations*, ed. by Daniel Breazeale, trans. by R.J. Hollingdale (Cambridge: Cambridge University Press, 1997),

scholars on Kleist tend to be located in the field of ‘*Germanistik*’⁶⁷ where there is a particular focus on and fascination with the violence in his writing, but little from the interdisciplinary perspectives of philosophy and history and material practices proposed throughout this study.

Collapse: material and geological

Collapse as a material concept is suggested by Kleist’s deliberation on the stones of the arch and what may befall them when they collapse *at the same time*. The visual and conceptual perspective of collapse is considered through natural philosophy,⁶⁸ theories of the earth, geography and early concepts of geology, where the subterranean foundations are uncertain. This inquiry experiments with fragments from the history of geology in order to consider collapse as something beyond the histories suggested by the mid- to late eighteenth century – as uncertain layers of material existing in time. Experimenting with the limestone at Portland and understanding its significance to eighteenth-century studies of geology found a compelling concurrence and correspondence with the material, geological, literary and philosophical histories of eighteenth-century Germany: for example, mineral collecting was a passion for Goethe, who spent a fortune amassing his collection of 18,000 specimens; Abraham Werner of the Freiberg Mining Academy also had a comparable collection. Werner searched for a way of cataloguing mineralogy. Novalis was critical of Werner’s mineralogical taxonomy in *Notes for a Romantic Encyclopaedia*.⁶⁹ The seventeenth-century scientist, architect and polymath Robert Hooke links

Walter Benjamin, *Selected Writings Volume 2, 1927–1934*, trans. by Rodney Livingstone and others, ed. by Michael W. Jennings, Howard Eiland and Gary Smith (Cambridge, MA: Belknap Press, Harvard University, 1999), Franz Kafka, *Letters to Felice*, eds. Erich Heller and Jürgen Born, trans. by James Stern and Elisabeth Duckworth (New York: Schocken Books, 1973), Robert Walser, *Selected Stories*, trans. Christopher Middleton and others (New York: Farrar, Strauss and Giroux, 2012).

⁶⁷ ‘*Germanistik*’ the German term for German studies, including literature and language. For example see Luanne Frank, ‘No way out: Heinrich von Kleist’s *Erdbeben in Chile*’, in *The Lisbon Earthquake of 1755: Representations and Reactions*, ed. by Theodore Braun and John Radner, *Studies on Voltaire and the Eighteenth Century*, Vol. 2 (Oxford: The Voltaire Foundation, 2005), p. 267.

⁶⁸ Throughout this thesis I have preferred the term ‘natural philosophy’ to natural science since in English ‘science’ is a much later term, also Kant described himself as a natural philosopher, though ‘*Wissenschaft*’ in German does mean natural science and consequently many translators opt for that. Further, according to Catherine Plant (Teaching Fellow German/EAP, UCL Centre for Languages and International Education CLIE) ‘the *Wahrig Deutsches Wörterbuch* gives the meaning as (I translate) an “ordered, coherent and logically structured field of insights/knowledge”. Science is often also used contrastively with regard to the arts, and religion or belief/faith. *Naturwissenschaft* was added later to indicate the natural sciences, as opposed to just science, i.e. anything that was deducted from experiments, observation, proofs etc., so the word *wissenschaftlich* is often used to mean academic as well as scientific.’ [Email to author: 11 June 2013]

⁶⁹ Novalis, *Notes for a Romantic Encyclopaedia: Das Allgemeine Brouillon*, p. 95

the material of Portland stone to fossils and geology, and to architecture and engineering. Hooke's ideas were crucial for the later development of James Hutton's theories.⁷⁰ Credited with establishing geology as a discipline, Hutton published his first geological observations in 1785 as *Theory of the Earth*,⁷¹ where he identified geological time as layers that were incrementally formed and breached over vast periods. Later theories of the earth took up themes of collapse in a different way – Georges Cuvier, the French comparative anatomist, advanced the theory of catastrophism in his 1812 theory of the earth; his study of fossils was the first to theorize a concept of extinction.

The key texts for considering the geological as an experimental poetic of collapse are Novalis's *Notes for a Romantic Encyclopaedia*, and *Die Lehrlinge zu Sais* (*The Novices of Sais*), the writings of the quarryman and self-taught geologist Hugh Miller (1802–1856), and Jacquetta Hawkes's (1910–1996) cultural archaeology, *A Land* (1951), which portrayed Britain's geology as an experimental poetic. She identifies stone as an enduring material of continuity and locates questions of geology and the perception of time. But there is a paradox in this continuity: that of the geological formations of the earth having been forged in collapse, disaster and upheaval, even if they took place over vast millennia. Hawkes formed her ideas during World War II, a time of uncertainty and large-scale human misery, when attachment to the land emerged from social and collective need. Material histories are considered in Adrian Stokes's writings on limestone and later in Alberto Perez-Gomez's *Architecture and the Crisis of Modern Science* (1983), in Bernard Stiegler's concept of the *tekhne* in *Technics and Time I* (1998), and in Paul Carter's *Material Thinking* (2004).

The volume and density of Portland stone is collapse made material: it is a fine limestone made of oolites – microscopic shells – formed in layers over millennia as they collapsed and died in the abundance of the warm seas of the Jurassic period some 70 million years ago. This is most graphic in the top or roach layer of Portland stone, where the fossilized bivalves and twisted shells *Aptyxiella portlandica* 'Portland screw' can be seen – these dead creatures *are* the material itself, death as stone.

William Smith made the world's first geological map, which started from observing the fossil material contained in the strata while working as a surveyor and engineer building canals in the West Country. Smith amassed a large collection of fossils and catalogued them as evidence for mapping Britain's geological strata. The fossil collectors, Mary Anning, William Smith, and the quarryman and self-taught geologist, Hugh Miller, made contributions to

⁷⁰ Ellen Tan Drake, *Restless Genius: Robert Hooke and his Earthly Thoughts* (Oxford: Oxford University Press, 1996)

⁷¹ This was predated by the novelist and playwright, Oliver Goldsmith's 8 volume: *An History of the Earth, and Animated Nature*, 1774.

geology through their practical work on site in the field.

The specific nature of coastal collapse on Portland is the consideration of the work of Brunsden, Coombe, Goudie, and Parker in their 1996 study ‘The structural morphology of the Isle of Portland, southern England,’⁷² which discusses how the distinctive qualities of limestone create conditions for collapse. In the cliffs at Portland, coastal collapse is the most frequent in Britain. Limestone is formed horizontally in layers, with naturally occurring vertical cracks. At the edge of the island these fissures or ‘gullies’ have the potential to expand, rendering the cliffs vulnerable to collapse. Since 1636 there have been seventy-two cliff collapses at Portland. Collapse at Portland makes the foundation of some parts of the island unstable and uncertain. Collapse is an inherent quality of the island of Portland and its stone.

Collapse: material and architectural

The perpendicular whiteness of freshly exposed cliffs following a substantial coastal collapse at Portland in 1636 showed how this local limestone could be translated into the classical ideal. As an architectural material, Portland has a long association with London and has given its architecture a visual coherence. The architectural limestone from Portland had its most rapid expansion under the monopoly of the royal charter initially operated by Inigo Jones, and expanded by Christopher Wren.⁷³ Portland’s location on the coast meant that quarried blocks could easily be transported to London. Large-scale requisition of Portland stone befell following the disaster of the Great Fire of London, when Wren was commissioned to rebuild St. Paul’s and fifty other London churches and buildings. The attribute of stone to encompass time made it an effective material for renewal and memorial. Portland stone was later used to build the grave markers and memorials for the absent bodies of the missing dead after the First and Second World Wars. In quarrying and taking the stone to stand in for the dead absence is doubled. The use of limestone for rites of death is characterized in its chemistry, and in its linguistic meaning and history: the Greek word sarcophagus means flesh-eating stone – *sarx* flesh and *phagien* to eat. Adrian Stokes’s writings on limestone and its weathering as well as his thoughts on flesh and stone are also considered.

⁷² Denys Brunsden, Ken Coombe, Andrew S. Goudie, and Adrian G. Parker, ‘The structural geomorphology of the Isle of Portland, southern England’ *Proceedings of the Geologists’ Association* Vol.107, No. 3 (1996), 209–30.

<doi: 10.1016/S0016-7878(96)80030-7> [accessed: 20 November 2010]

⁷³ See Norman Bezzant, *Out of the Rock*, The Bath and Portland Group (London: Heinemann, 1980), ‘Resurgam’, pp. 75–90, and Jane Lang, *Rebuilding St. Paul’s after the Great Fire of London* (Oxford: Oxford University Press, 1956)

As a material, stone confers its geological history to architecture. It is quarried, cut and prepared. As an architect and engineer, Robert Hooke was significant in researching structural methods. Kleist's initial proposition of the arch held in place because all the stones want to collapse *at the same time*, that the arch made from stone holds collapse in abeyance, is put in context with Hooke's theorem as to why an arch remains standing; this is discussed with reference to the engineering of an arch and the circumstances of how it may collapse in an architectural situation. The history of this is also identified as the demarcated shift between the master stonemason and the professionalization of the architect and engineer through the teaching of stereotomy in France in the mid- to late eighteenth century, as referenced in Pérez-Gómez's *Architecture and the Crisis of Modern Science* (1983).

At Portland the quarries are places constructed incrementally as each block is cut and taken away; space is made and the void created. Architecture returns to the quarries as negative space, as inverted architecture and as a form of collapse. The uncertainty of the sites of the quarries and the cliffs, where coastal collapse has happened and will likely occur again, have been places where site-specific research has been able to unfold and suggest multiple ways of thinking and experimenting with collapse.

4. Chapter Overview

The first chapter begins by analysing Kleist's empirical concept of the arch held together by collapse, as it was advanced in a two thousand-word letter to his fiancée, written over several days in late November 1800, and with the drawing of the arch as an addendum in December. The letter is investigated as a material object, the site of the development and rehearsal of Kleist's thinking, as the place for instruction to Wilhelmine the betrothed, and as eighteenth-century activity. An epistolary philosophy is suggested. Kleist's empiricism is repeatedly articulated in his letters, which are autodidactic whilst serving as instruction to Wilhelmine; his deep attachment to the concept is shown in his zeal to teach it to her and in the desperation he feels as it collapses. He articulates his abject misery after reading Kant's unspecified *Critique*, which caused his understanding of the world to collapse. Kleist's formation of the arch is interpreted with reference to Kant's theories of space and time in 'Transcendental Aesthetic' (first and second parts) in the *Critique of Pure Reason*. Kant's *Critique* is further considered in terms of the development of the modern subject and what can be known and certain about truth.

Chapter Two is divided into three parts; the first two are a close textual analysis of two of Kleist's stories: the short story *Das Erdbeben in Chili* and

the novella, *Michael Kohlhaas*, as embodying collapse both materially and conceptually, and as external and internal realities of uncertainty. The third part explores Kleist's concept of the abyss as spatial collapse. In Kleist's writing, architecture is a repeated conceptual device that acts upon the characters. In this chapter the focus on the story *Das Erdbeben in Chili* is connected with the probable source material for the story, the Lisbon earthquake of 1755, analysing the story in its historical context and the subsequent development of scientific inquiry in the latter part of the eighteenth century, particularly as it appears in Kant's three essays on earthquakes, written in the wake of the Lisbon catastrophe. These essays in part demonstrate Kant's own transition from empirical to critical thinking. This chapter suggests that rather than only considering Kant's later critical works, it is likely that Kant's earlier writing on natural phenomena also shaped the themes explored in *Das Erdbeben in Chili*. The grimness of the fate of the two characters in the story shows material, architectural, social, moral and foundational collapse. In *Michael Kohlhaas*, collapse is explored as contested terrain, as the territory and geography of collapse, as the eponymous character engages in battle across state boundaries; as political collapse represented through the abuse of power by the ruling elite; and, finally as the internal collapse of reason in Kohlhaas himself. This is explored with reference to the history and theory of territory, and the rise of the citizen in late seventeenth century. The texts are analysed closely through identification and scrutiny of architectural and spatial metaphors as representations of material and social collapse.

Part three of Chapter Two discusses spatial and abyssal collapse as Kleist embarked on a frenetic and spectacularly productive period of writing and publishing and experimenting until his death. Looming over everything is Kleist's early death in 1811 at the age of thirty-five, in a suicide pact with a young woman who was dying of cancer. Kleist shot both her and himself. They died on the banks of the Kleiner Wansee. Kleist describes a rage of misery, but it is one that is based on *having* a relationship with the world and with ideas, rather than the avoidance of it. Kleist's misery was productive.

The inquiry in Chapter Three makes a connection between practice and material knowledge through the interdisciplinary work laid out in Novalis's *Notes for a Romantic Encyclopaedia*. The arch made from stone led to considering the effect mineralogy and fossil collecting had on the histories of geology in eighteenth-century Germany and Britain. Traveller-naturalists brought knowledge and material from far-flung places to centres of learning. Novalis's background in mineralogy, poetics and philosophy were concurrent with the expansion of philosophical thought in the latter part of the eighteenth century. This has a strong lateral link to Kant's evolution from natural to critical philosophy. In Britain, Robert Hooke was a key figure in

the development of geology and was also a scientist, engineer, and architect important in the rebuilding of London after the Great Fire. Hooke intuited a theorem concerning how an arch stays up and has strength and elasticity. The collapse of arches is discussed with reference to engineering, particularly the work of the civil engineer, Jacques Heyman in *Arches, Vaults and Buttresses* (1996). As part of the Jurassic coast, the geology and history of Portland is tied to theories of the earth, which developed from mid- to late eighteenth century. Alongside Kant's natural philosophy, other theories of the earth, by Cuvier's and James Hutton, are considered, and also the working-class geologists and collectors William Smith, Mary Anning and Hugh Miller as practitioners in the field. A key text for this inquiry is Jacquetta Hawkes *A Land*, first published in 1951; it is a geological, archaeological, poetic history of the land of Britain and is an early work of site-writing.

The final chapter analyses my previous film and video practice against the current context of anxieties concerning the collapse of the material of celluloid film stock. Analogue film is discussed as the principal mechanical form of Walter Benjamin's 'Art in the Age of Mechanical Reproduction', and in relation to art film of the 1930s. Further context is given to my identification with the poetics of experimental and art film. The mechanics of film editing and the work of women film editors, Yelizaveta Svilova and Danielle Huillet are discussed, because my early experience in film editing shaped my visual practice. An overview of my previous film practice is considered in terms of the recurrent themes of materiality and place. The experimental practice consists of time-based media: 16 mm film, video, animation and projected still images. The concept of collapse is explored and demonstrated through a situated practice from the island of Portland in Dorset, and my film practice experiments with the uncertain spaces of the quarries and the disrupted landscape of Portland as a site demonstrating collapse. The sense of collapse as wandering and death is explored in the digital videos shot in Germany in Frankfurt an der Oder, the city of Kleist's birth, and at Kleiner Wannsee, near Potsdam, where he died. The practice coalesces where the films, videos, animation and stills are brought together and culminate in an installation where experiments of uncertainty are created as a synthesis of collapse.

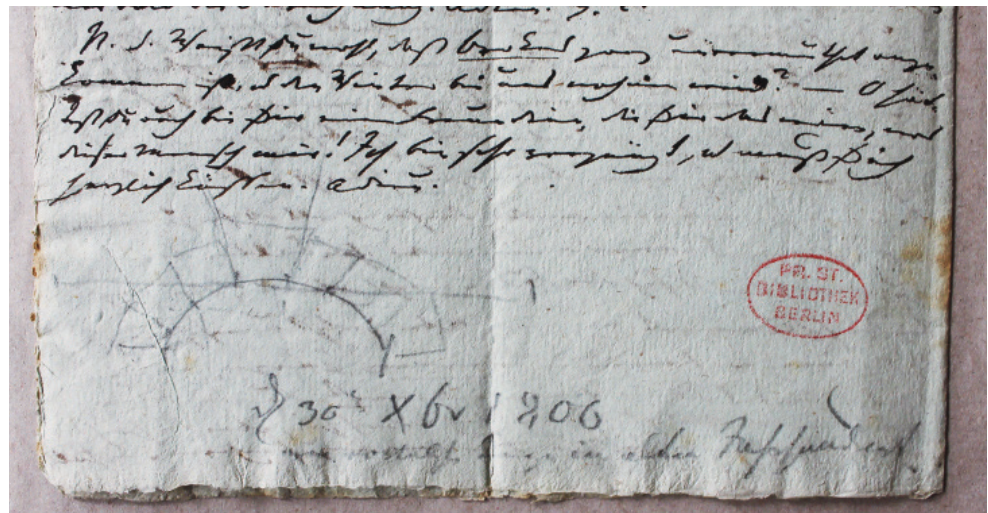
The arch as concept, object and image where the stones constructing it are bound together in a formation of collapse has been used to consider collapse in other forms and modes. This has been validated through experimentation with how collapse, which is conditioned by uncertainty, can be seen and interpreted in other fields. Collapse, thus became a way of looking at, thinking about and interpreting space, material and practice.

Chapter One

The collapse of certainty and the geometry of collapse

This chapter analyses Kleist's empirical metaphor of the arch held in place by collapse. The letter in which it is proposed is investigated as artefact. When Kleist reads Kant's *Critique* his previous understanding of truth collapses. The geometry of the arch is interpreted with reference to Kant's theories of space and time. Kant's questions about what can be known, and the uncertainty of truth, are also considered.

On the evening before that most important day of my life, in Würzburg, I went for a walk. When the sun went down, it seemed as though my happiness were sinking with it. I was horrified to think that I might be forced to part with *everything*, everything of importance to me. I was walking back to the city, lost in my own thoughts, through an arched gate. Why, I asked myself, does this arch not collapse, since after all it has *no* support? It remains standing, I answered, *because all the stones tend to collapse at the same time* – and from this thought I derived an indescribably heartening consolation, which stayed by me right up to the decisive moment: I too would not collapse, even if all my support were removed! That, my dear Minna, no book could have told me, and I call it a *true lesson from nature*.¹



1.1 Kleist letter, arch drawing
added 30 December 1800.
Photograph, Jane Madsen

¹ Heinrich von Kleist, Berlin 16 (and 18) November (and with addition 30 December) 1800. Kleist, *An Abyss Deep Enough*, p. 76. Kleist's emphasis. Kleist used idiosyncratic punctuation, this was mainly because he was writing prior the establishment of the grammatical rules defined in the *Duden Handbook*, 1860.

1. The Arch Letter and epistolary space

Kleist wrote the above letter to his fiancée, Wilhelmine von Zenge, early in their betrothal. He was in an ebullient state and felt that he should inform and instruct her. In order to analyse the arch letter, it is useful to put Kleist's letters, in particular those to Wilhelmine von Zenge, in context. There is only one of her late letters extant² and consequently it is difficult to gauge her voice. For Kleist, she appears at a particular moment in his adult life, in 1799, when he was 21 and had resigned his commission from the army, having joined in 1792 at the age of 14. He was meant to be studying in Frankfurt an der Oder, though he did this in a somewhat erratic way – of working in bouts of intensity and subsequent ambivalence. Kleist was born in Frankfurt an der Oder, the region where the Kleists were part of the *Uradel* (ancient nobility) with very longstanding connections.³ The university was not reputed to be one of 'great standing'⁴ however, the quality of the university is of less immediate note than the subjects Kleist studied: physics, mathematics and philosophy. The topics engendered by his studies in these fields are the basis, and very likely the style, of the arch letter. In the letters to Wilhelmine, Kleist often adopts the method and stance of the teacher – the knowing figure instructing the untutored; he is somewhat pompous, he does not write as the enthusiastic student who is learning new things, but as one convinced of his understanding and conceptual grasp of the world.

When he parted company with the army, Kleist wrote to Christian Ernst Martini, his childhood tutor who remained his friend and confidante, describing his military career as:

[...] something fundamentally incompatible with my entire nature, and to which I had never really felt committed at heart [...] I now dedicate myself to the realm of knowledge, this is no new occupation for me, for since I have been in Potsdam I have been more of a student than a soldier in any case. [...] At home in Frankfurt I had to listen to

² Wilhelmine von Zengen an Kleist 10 April 1802, in Heinrich von Kleist, *Sämtliche Werke und Briefe*, Herausgegeben von Helmut Sembdner, Zweiter Band (München: Carl Hanser Verlag, 1984), p. 721–23; and Kleist, *An Abyss Deep Enough*, p. 143–45. Following the common practice editing the letters of literary figures, the letters from his correspondents are omitted. Only one of Wilhelmine's letters is included, this is because the letter was returned to her unopened. Kleist's biographer refers to Wilhelmine's letters, but they are not referenced, see Joachim Maass, *Kleist: a biography*, trans. Ralph Manheim (New York: Farrar, Straus and Giroux, 1983), pp. 17–18, 20, 32. There are few biographies of Kleist; this is neither a particularly intellectual nor a literary biography, but gives a good account of the chronology and people in Kleist's life.

³ The Kleists had substantial estates in Prussia in the southern region of the former Duchy of Pomerania, later part of Brandenburg, which were recorded as early as the C12th or C13th.

⁴ Maass, *Kleist: a biography*, p. 6.

objections, questionings as to what bread-winning knowledge I intended to acquire. [...] They granted me a choice between law and political science.⁵

This is a familiar and somewhat contemporary voice of the unresolved and dissatisfied youth moving from one quarter to another, consumed by indecision, only knowing what he does not like, while at the same time facing familial expectation and disappointment. However, generational conflict had been at the heart of cultural manifestations in Germany; for example, the *Sturm und Drang* group of the previous generation in the 1770s was comprised of disaffected young men.⁶ In his role at the university at Frankfurt an der Oder, Kleist anticipates the trope of the student characterised by Thomas Elssasser as someone who is socially displaced, without social status, poor and marginalised as a kind of non-person,⁷ and by resigning his army commission, Kleist chose this marginalised role of the student. This connotation of the student is also a romantic one, where the young (male) person is somehow away from the world, in a monastic space, learning and, more particularly, thinking. This was all the more so in Germany in the late eighteenth century where, compared to other European countries, there were many universities, and German universities had no entry requirements. This, according to Whaley, meant that the ‘system was over producing academically qualified young men’⁸ and consequently there were large numbers of either low-paid or unemployed educated young, mainly middle class, men. Whaley further notes that the number of young writers emerging from this was one of the ‘most significant social developments in Germany in the eighteenth century.’⁹ This was the context in which Kleist started university, though the problem of eventually finding some kind of acceptable employment was less one of class for Kleist than one of inclination.

Kleist’s older half sister Ulrike was the person to whom he wrote most consistently,¹⁰ writing in a different style than the way he directed his thoughts to Wilhelmine. He addressed Ulrike as an intimate equal, sharing confidences

⁵ Kleist, *An Abyss Deep Enough*, pp. 22–23.

⁶ This is further explored in Mark Roseman, ed., *Generations in Conflict: youth revolt and generation conflict in Germany 1770–1968* (Cambridge: Cambridge University Press 1995), Chapters 1 and 2.

⁷ See Thomas Elssasser ‘Social Mobility and the Fantastic: German Silent Cinema’ in James Donald, ed. *Fantasy and the Cinema* (London: BFI Publishing 1989), pp. 26–27, 37, where he discusses the role of the student depicted in such film examples as *Der Student von Prag* (*The Student of Prague*) (1913), and its literary sources from the eighteenth and nineteenth centuries.

⁸ Joachim Whaley, ‘The ideal of youth in late eighteenth-century Germany’ in Roseman *Generations in Conflict*, p. 51.

⁹ Ibid.

¹⁰ At the end of his life this relationship had broken down and Kleist was closer to Marie von Kleist, his cousin by marriage.

with her in a fraternal way, though also as someone older and responsible for arranging things, especially the continual transfer and forwarding of money.¹¹ Kleist adopted a frank tone with Ulrike, using the letters to take up further points in a conversation, and from these it is possible to get a strong sense of Kleist's voice. Two months after he left the army, he wrote to Ulrike reproaching her lack of understanding of his rationalist directive for living, the *lebensplan* (life plan): '[...] I feel with such inwardness the calm with which I look to the future, the priceless happiness that my life plan affords me [...]'.¹² In this instance, Kleist's claim about his inward calm seems so precarious that it is possible to already see the demise that he believes his plan prevents, and to sense Ulrike's implied doubt. In his *lebensplan* Kleist tried to draw up a contract with the world, as a way of ordering his method of living in and with the world; inevitably, such an unworkable contract could only be broken.

Kleist held fast to the conviction of the *lebensplan*, his rationalist strategy for life. He wrote to Ulrike in 1799, somewhat affronted about her apparent scepticism concerning his certainty, and claimed that:

A traveller who knows his destination, and the route to that destination, has a travel plan. What a travel plan is for the traveller, a life plan is for the person in general. To undertake a journey without an itinerary would mean leaving to Chance whether we should reach a goal, which we ourselves would not foreknow. To live without an itinerary for our life would mean leaving to Chance whether we should arrive at a happiness of which we ourselves have no prior conception.¹³

It is curious that in order to emphasize that he has a rational plan for his life he uses similes derived from travel, without any hint of irony, nor acknowledgement that travel and movement from one place to another is inherently an encounter with the unknown, the unforeseen and uncertainty, even if there is an itinerary. Nevertheless, Kleist's conviction in his life plan, the sense of certainty, the need and the intense desire for such certainty lends further insight as to how badly he would be affected by reading Kant's critical philosophy. Despite his *lebensplan*, Kleist's life was never quite in control or never far from going disastrously awry.

In November 1799 Kleist wrote to Ulrike about meeting Wilhelmine, saying that his only daily company in Frankfurt an der Oder was at the home of

¹¹ Ulrike von Kleist was financially better off as she had inherited from her mother's fortune. Heinrich von Kleist was his father's third child – the first son and first child of his father's second marriage and therefore reliant on his father's dwindled fortune. See Maass, *Kleist: a biography*, pp. 4–9.

¹² Kleist, *An Abyss Deep Enough*, p. 28. Letter, May 1799.

¹³ Ibid.

Major-General von Zenge.¹⁴ He described Wilhelmine as having a ‘sense for the finer things’ saying ‘[...] I am grateful if she listens to me at times with interest, even if she has not much to say in return.’¹⁵ It is interesting that Kleist describes her as a quiet person with little to say. Whereas, on the other hand, Kleist had a great deal to say, and at times in the course of the letters Wilhelmine is less a person with whom he exchanges ideas and personal experiences than someone to whom he can send his notes and one who will look after his developing ideas; she becomes a mirror in which he seeks a reflection of himself. Only a short time after meeting late in 1799, at the beginning of 1800 they became engaged. Their liaison was also the beginning of Kleist’s education of Wilhelmine and the place where his own self-instruction was demonstrated.¹⁶ Consequently, the letters to Wilhelmine are sites where he works through and develops his understanding and knowledge of the philosophical ideas to which he is attached, and presumably has been exposed at the university in Frankfurt an der Oder. He refers to Wilhelmine’s education again in the letter of 22 March 1801, written in the immediate aftermath of reading Kant’s *Critique*. However, before explaining his state of mind, he comments on her reading Rousseau’s *Émile*, telling her he will buy her Rousseau’s complete works and that he will advise her in which order they are best read, indicating that Kleist was well acquainted with Rousseau.

1.2 Wilhelmine von Zenge. Miniature, 1800/1801, artist unknown. Photograph, James Swinson

1.3 Heinrich von Kleist. Miniature, 1801, painted by Peter Friedel. Collection of Staatsbibliothek zu Berlin. www.gettyimages.co.uk



All of this seems at odds with the later, more agonised content of the letter, especially given that *Émile* deals with the life of the individual where education is the formation of the heart and spirit of the boy from earliest infancy to about twenty-five, exploring how moral freedom can be aligned within society

¹⁴ Major-General von Zenge later commanded a brigade in the Battle of Jena on 14 October 1806, which the Prussians lost.

¹⁵ Kleist, *An Abyss Deep Enough*, p. 31.

¹⁶ See Maass, *Kleist: a biography*, p. 17. Kleist’s proposal of marriage to Wilhelmine was by letter and was included in an envelope with a correction of her last essay.

while still being good.¹⁷ The letters are explorations of exterior spaces as well as thoughts about their relationship. For example, an earlier long letter to Wilhelmine, sent from Würzburg and dated 11 and 12 September 1800, is full of lengthy detours and detailed descriptions Kleist makes an offhand and revealing aside, saying ‘Forgive all these minutiae. I expect to make use of these notes some day.’¹⁸ This in part explains some of the impersonal, observational detail in the letters, but also indicates that he has his eye on a future, which may include being a writer, though at this moment he is collecting the notes and observations as raw material, and constructing an archive, and meanwhile expects Wilhelmine to keep the letters safe for him.

The letters had a purpose other than a desire to correspond or communicate with his betrothed. Kleist’s letters to Wilhelmine seldom conform to any recognisable form the love letter has taken in any era; he concedes few intimacies or acknowledgements of ardour or deeply held feeling towards her. These note-taking letters sent to Wilhelmine for safe keeping may explain the elaborate deviations into such examples as his fascination with Catholic churches and Catholicism, even though he is Protestant and manifests no religious feeling himself. These notes show his interest in Catholicism as it applies to and determines the lives of others, themes later appearing in *Das Erdbeben in Chili* (*The Earthquake in Chile*), and *Die heilige Cäcile oder die Gewalt der Musik* (*St. Cecilia or The Power of Music*) (1810). The length of many of the letters and their use as spaces where Kleist’s thought is developed gives them the quality of both the essay and the epistle. In the late eighteenth and early nineteenth centuries epistolary writing was an essential aspect of life for a cultured and educated person. Letters were the place where ideas were developed, and the epistolary form was the critical structuring device in the development of the novel, where epistolary writing was used to shift the mode of address from that of a known reader to an unknown one.¹⁹

Letter writing was an important social activity, and one in which someone of Kleist’s class was expected to participate. The German writer, essayist and philosopher Christian Fürchtegott Gellert published theories on letter writing in 1742 and in 1751, suggesting that letters should be written in a ‘natural’

¹⁷ See Nicholas Dent, *Rousseau* (Oxford: Routledge 2005), pp. 23–27, also Ch. 4, ‘Émile’ pp. 81–123.

¹⁸ Kleist, *An Abyss Deep Enough*, p. 57.

¹⁹ See for example: Samuel Richardson’s *Clarissa*, 1748; this early form of the novel developed by English writers was of importance in the history of German literature. Ludwig Tieck’s first novel *Die Gesichte des Herrn William Lovell* (*The story of Mr William Lovell*), (1795–96) was based on *Clarissa*. Goethe’s early epistolary novel was *Die Leiden des jungen Werther* (*The Sorrows of Young Werther*), (1774); its theme of suicide caused a sensation. Hölderlin’s *Hyperion* (1797–99) was also written in the epistolary form.

style,²⁰ this concept of ‘naturalness’ suggests a connection to contemporary Enlightenment prose writing. However, for Kleist, these epistles are more essays in practical philosophy or natural philosophy, and even though his letters are at times long and verbose this form never became the vehicle for his own prose writing, which was rather spare in style.

Similarly, he also charged Ulrike as carer and custodian of his writings. In a postscript to his letter of 27 October 1800 he asks ‘If Aunt must go to my bureau for linen, then see to it that the upper part where my scribblings are, *will not* be opened’.²¹ Clearly, he wants to keep the ‘scribblings’ for later use; it is not indicated whether they are letters, but may already be notes intended for future writing schemes. This postscript also reveals his tendency to be secretive: his desire for concealment confuses how Kleist’s letters may be viewed as personal collections of ideas, and leads to Hans Bödeker’s question as to whether letters are private or public. He argues that as soon as a letter has been despatched it becomes ‘public’.²² This raises the further question: does the content of a letter still belong to the writer once it has left them, given that the letter as a material object belongs to the recipient? More generally, is it possible to ask what kind of spaces letters mark out? In Germany in the eighteenth century, Elkar notes that there was a tradition among the *Freundschaftsbünde* (friendship groups) where circles of friends would meet, and that:

Frequently, the letters would be read out amongst the remaining members of the circle, and some found a wider audience in the journals of the time, a number of which reserved a regular section for such correspondence.²³

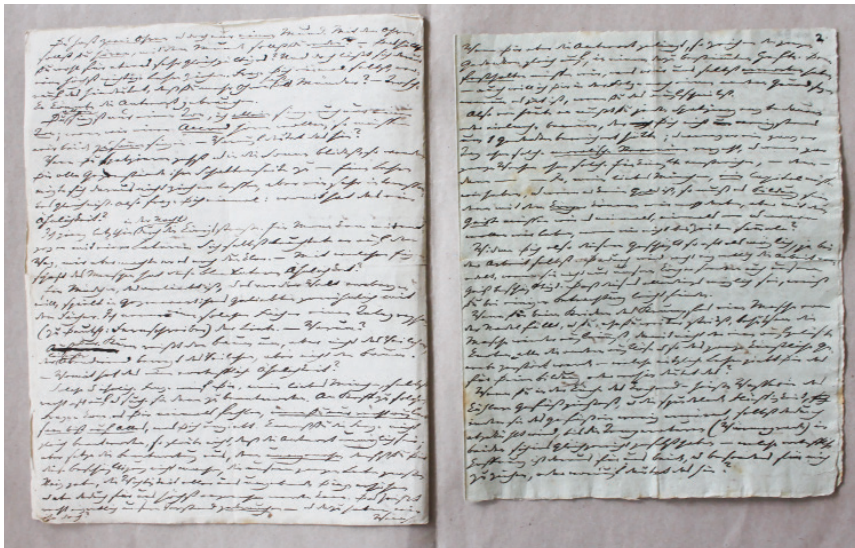
This comment provides the context in which letters were read and the spaces

²⁰ ‘Natural’ in this instance meant a less highly formal aristocratic style, see Willemijn Ruberg ‘Letter Writing and Elite Identity in the Netherlands 1770–1850’ *Scandinavian Journal of History* 30:3–4, (September, 2005), pp. 249–58. <<http://dx.doi.org/10.1080/03468750500272579>> [accessed 26 January 2013]. Christian Fürchtegott Gellert 1715–1769 a popular poet, storywriter and essayist wrote on uplifting moral themes, published instruction about letter-writing; this is discussed in Rafael Arto-Haumacher, *Gellerts Briefpraxis und Brieflehre: der Anfang einer neuen Briefkultur (Gellert’s letter-writing practice and letter-writing instruction: the beginnings of a new letter-writing culture)* (Wiesbaden: DUV c.1995). Kleist unfavourably mentions Gellert, clearly regarding him as a pompous philosopher, *An Abyss Deep Enough*, pp. 56, 241.

²¹ Kleist, *An Abyss Deep Enough*, p. 72. Kleist’s emphasis.

²² Hans Erich Bödeker, ‘Letters as historical resources – Some concluding reflections’, in *Reading, Interpreting and Historicizing: Letters as Historical Sources*, ed. by Regina Schulte and Xenia von Tippelskirch, EUI Working Paper HEC No. 2004/2, (European University Institute, Florence, Department of History and Civilization), [accessed 21 January 2013], p. 200.

²³ Rainer Elkar ‘Young Germans and Young Germany: some remarks on the history of German youth in the late eighteenth and in the first half of the nineteenth century’, in Roseman, *Generations in Conflict*, p. 71.



1.4 Kleist letter. Sheet 1,
p.4. Sheet 2, p.1.
16 and 18 November 1800.
Photograph,
Jane Madsen

letters occupied in the late eighteenth and early nineteenth centuries.²⁴ The writings of Gellert, Schiller and Christoph Martin Wieland²⁵ were popular among the *Freundschaftsbünde*. What kind of space do Kleist's letters create? It is possible within his own family, in Wilhelmine's circle, among the army friends he retained and his later literary colleagues, that his letters were read out loud. Therefore, keeping the 'scribblings' secret seems unduly suspicious. Kleist's letters are not especially confessional, and those to Wilhelmine are in a pedagogical mode, which seems more clearly interpretable as public. The keeping and preservation of the material letters is a role designated to women, a historically ambivalent role, since without Ulrike and Wilhelmine's initial care and preservation these letters may not exist, yet few of their letters seem to have been kept by Kleist, nor were they published, and consequently their particular perspectives, voices and responses are less available. There are many absences in the series of letters²⁶ – before his suicide Kleist destroyed papers, which likely included letters. In the immediate aftermath of his death a number of Kleist's letters were destroyed by Ulrike and Marie von Kleist, because relatively soon after he died it was evident that there was going to be a reputation to protect;

²⁴ For example the importance of letters as personal and private conversations between two people were a later occurrence as epistolary culture developed, see James Daybell, *The Material Letter in Early Modern England: Manuscript Letters and the Culture and Practices of Letter-Writing, 1512–1635*, (Basingstoke: Palgrave Macmillan, 2012), p. 12–13. See also Introduction in David Barton and Nigel Hall, eds. *Letter Writing as a Social Practice*, (Amsterdam: John Benjamins, 1999), p. 2, where they note: 'Despite its prevalence there has been little study of letters as a genre, compared for example, with poetry or the novel, and there has been little attention paid to letters as objects.'

²⁵ Friedrich Schiller poet, playwright (1755–1805). Christoph Martin Wieland (1733–1813), the editor of *Der Teutscher Merkur* was a powerful publicist and literary figure. See James J. Sheehan, *German History (1770–1866)*, (Oxford: Clarendon Press 1989), p. 210.

²⁶ There were two hundred and twenty-eight letters initially collected, transcribed and published. The letters are in different collections and archives in mainly in Germany and Poland. There was some later (accidental) destruction; though undocumented letters occasionally emerge they are rare.

1.5 Kleist letter. Envelope.
18 November 1800.
Photograph,
Jane Madsen



but later, the letters were obsessively collected when Kleist's significance as a literary figure was established.²⁷ Kleist's literary colleague and friend, Ludwig Tieck 1773–1853, was instrumental in gathering together and publishing the first collected volume of Kleist's letters, which appeared in 1848. In 1798, Kleist had already written *Aufsatz, den sichern Weg des Glücks zu finden und ungestört – auch unter den größten Drangsalen des Lebens – ihn zu genießen* (*Essay on the secure way to find happiness and undisturbed – also among the greatest hardships of life – to enjoy it*), a very long and rambling piece of prose that is part-way between an essay and a letter: throughout, it is repeatedly addressed to the unknown and unidentified 'mein teurer Freund' (my dear friend). This epistle suggests happiness is dependent on avoiding the vicissitudes of chance, bad luck and misfortune, although later, the people in his stories and plays did not avoid the cruelties of chance, where bad luck and misfortune play a key role in the lives of his characters.

The arch letter is the eighteenth of many long epistles²⁸ to Wilhlemine.²⁹ It was written from Berlin in two parts on the 16 and 18 November 1800.³⁰ The material letter is on two different sheets of folded paper, making eight pages. The first sheet is creamy white and the paper has uniform edges; the second

²⁷ Kleist's biographer Joachim Maass admonishes the women surrounding Kleist holding them accountable for the absences and gaps in the collections of letters; see *Kleist: a biography*, pp. 299–300. It is not a vast collection of letters by the standards of the day, for example, by the time he died in 1832, Goethe left approximately 10,000 letters, see J. W. Goethe, *Letters from Goethe*, trans. by M. von Herzfeld and C. Melvil Sym. Introduction by W.H. Bruford (Edinburgh: Edinburgh University Press 1957)

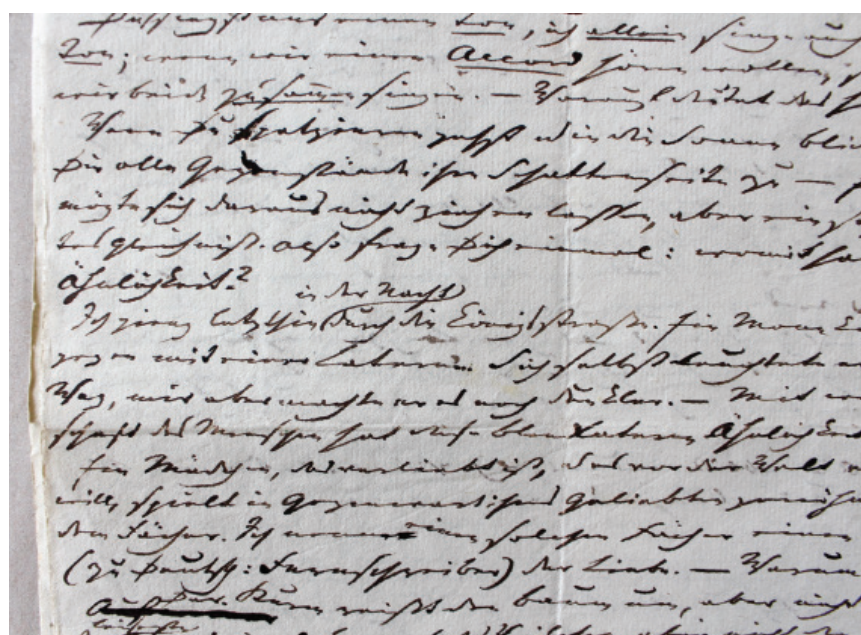
²⁸ In this instance about 2,500 words.

²⁹ There are thirty-four letters to Wilhelmine.

³⁰ The letter is held in the Sammlung Autographa (Heinrich v. Kleist), Biblioteka Jagiellonska Kraków, is one of about a hundred letters held in the Sammlung Autographa (Heinrich v. Kleist). At the end of WWII it was taken from the Bibilotek Berlin, along with other material, by the Polish army. The exhibition 'Kleist and the Epistolary Culture of his Epoch' was held at the Jagiellonian Library from 28 September – 28 October 2011, to mark the bicentennial of his death.

sheet is smaller and is different than the first; it is a light blue/green tone, not crisp, but light, and flexible with deckled edges;³¹ the mismatched paper suggests that Kleist was using whatever available material to hand. There are a few brown age stains on the paper and the edges. The fragile, delicate envelope is the same paper as the second sheet, folded around the letter, then sealed and initialled and addressed to the 'Stiftsfräulein' (convent school young lady) Wilhelmine von Zenge 'Hochwürden u. Hochwholgeb'³² (noble and highborn). There are small marks and tears to the envelope. Later additions include notes by Wilhelmine von Zenge, a handwritten administration number and date 1923, and a small oval red rubber stamp: 'Pr. St. Bibliothek Berlin',³³ indicating the letter's provenance. The bright red wax is squeezed out by the oval form of the von Zenge family seal – a coat of arms of heraldic imagery, centring on a helmet of ancient armour, above which sits a crown with two flags emerging, sheaves of wheat, and flowing feathers each side; underneath an object that looks like a falling pillar. The letter has been carefully looked after, not much handled, nor carried around; there is no scuffing of the paper. There are no bends or creases that were not there previously.

The letter is written in very black ink which time has not faded. The angular right hand slant of the handwriting gives it a relentless forward movement as though the thoughts were driving the writing onwards. The fluid, partly illegible writing is quite small and linear; underneath the words the lines are straightened and the letters flattened, not self-consciously neat. The lines are evenly spaced, neither crammed nor generous, the page is filled from edge to



1.6 Kleist letter, corrections detail. 18 November 1800. Photograph, Jane Madsen

³¹ Sheet 1: 23.7 x 19.2 cm; sheet 2: 21.7 x 18.1 cm. Heinrich von Kleist, *Sämtliche Werke*, Berliner Ausg. Band 4:1. Herausgegeben von Roland Reuss, Peter Staengle, (Basel; Frankfurt am Main: Stroemfeld/Roter Stern, 1988), p. 379.

³² Ibid. p. 380.

³³ This stamp is on the envelope, first page of sheet 1, and last page of sheet 2.

edge, its space not wasted. As the letter progresses, the writing seems hastier, as though in service to the intention of the quickly emerging ideas. There are more crossings out and underlinings emphasizing important thoughts. The paragraphs are defined and ended by the questions raised. As a material object, the letter seems preparatory – its overall quality, the paper, the writing seem more a gathering of thoughts, notations of ideas.

Following the date, Berlin 16 November 1800, is ‘Liebe Wilhelminen,’ then ‘Liebe’ is struck through and replaced with the underlined ‘Für Wilhelmine.’ Without preamble he begins the discussion on Newton. The first part is an epistle on empiricism: Kleist outlines a series of observations that apparently advance scientific knowledge and seem to be a validation of what he knows extemporised for the benefit of Wilhelmine’s further understanding. He tells and instructs Wilhelmine what to think, how to look and what she should find. These empirically determined examples further demonstrate both his vow to his previous tutor, Martini, and enact his avowal and dedication ‘to the realm of knowledge’,³⁴ and to what is knowable, where knowledge is justified through the evidence he amasses.

This epistemological construction was consistent with the contemporary Enlightenment thinking. In the letter, the first empirical observation is that of Newton and the falling apple, though Kleist describes this in quite poetic terms. The story of Newton’s observation about gravity was probably not very original even by Kleist’s time.³⁵ The next concerned Galileo’s observation of moving shadows as a chandelier sways, which led to the development of theories on the laws of motion (of the pendulum), and then Pilâtre’s idea for ‘der Luftschiffarhtskunst’³⁶ [the art of air travel] came after seeing smoke whirling and ascending, which phenomenon he thought may be capable of making something airborne.

Kleist’s observations become ever more fanciful: he suggests that Columbus stood on the shore of Portugal, noticed the distinctive features of a piece of driftwood, and recognizing that it was from far away led him to America. Lastly, a French prisoner languishing in a Dutch fortress developed a means of

³⁴ Kleist, *An Abyss Deep Enough*, p. 23.

³⁵ Drake notes, ‘[...] legends regarding Newton and his apple persist in both children’s books and text books for higher learning.’ This comment said in the context of a critique of Newton’s manipulation of his legacy and his failure to acknowledge Robert Hooke’s contribution to the theory of the universal law of gravitation. E.T. Drake, *Restless Genius: Robert Hooke and his Earthly Thoughts* including reprint of “Lectures and discourses of earthquakes and subterraneous eruptions” from: *Posthumous works of Robert Hooke*, London: R. Waller, 1705 (Oxford: Oxford University Press, 1996), p. 3.

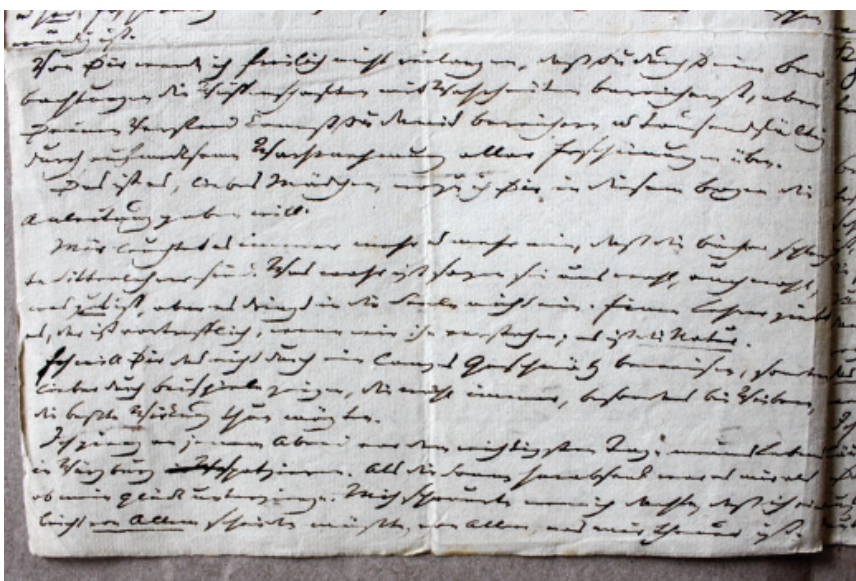
³⁶ Kleist, *Sämtliche Werke und Briefe* p. 591. Jean-François Pilâtre de Rozier (1754–1785) developed the first hot air balloon in 1783, he later died attempting to cross the Channel in 1785.

predicting the weather by observing the way spiders spin webs. Consequently, he was able to warn his French general that the thawing ice would freeze again soon and they would be safe to advance; this helped the general defeat the Dutch. These observations build an elaborate thesis about nature, culminating in Kleist's own contribution to empirical observation: that the arch remains standing because the stones want to *collapse at the same time*. His epistle concludes, 'That is it, dear girl, that on these pieces of paper wherefore I transmit these instructions',³⁷ this demonstrates his conviction that he is teaching her as well as himself. In this context the empirical observation of nature has provided the method, and fashioned Kleist into an autodidact.

As he builds up to the analogy of the arch, the apogee that is his own observation, Kleist emphasizes and locates the importance of these empirical observations:

It is ever clearer to me that books offer very bad moral instruction. They do of course tell us what is true, also what is *good*, but without penetrating within. There is one splendid teacher, and that is *nature*.³⁸

Kleist's discussion of these examples of scientific history from Newton, and Galileo and the empirical observation that led to the development of Pilâtre's balloon are described and presented in terms of absolutes, based on faith rather than concepts to be tested. This reveals a seemingly unassailable certainty about nature, where one learns through careful observation and the observations of others. Kleist asserts that nothing in nature is unworthy of our attention, each of the examples listed is concrete – empiricism is thus

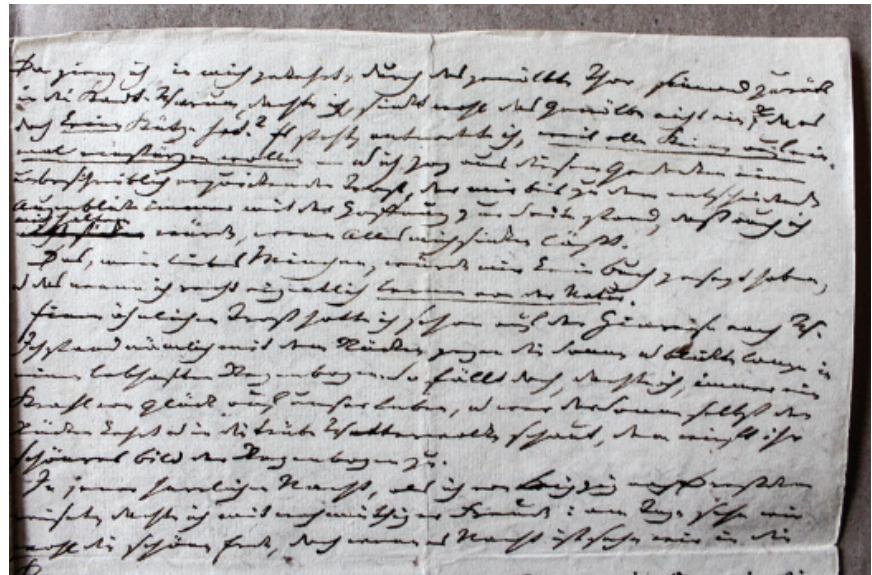


1.7 Kleist letter, arch metaphor detail. 18 November 1800. Photograph, Jane Madsen

³⁷ Ibid. p. 592. Author's translation.

³⁸ Kleist, *An Abyss Deep Enough*, p. 76. Kleist's emphasis.

1.8 Kleist letter, arch
metaphor detail.
18 November 1800.
Photograph,
Jane Madsen



presented as a material inquiry dependent on the thing in front of him and not an intangible idea. There is nothing more apparently tangible, durable and material than the stones of the arch. This raises the question as to whether Kleist has pushed the limits of empirical observation of the natural, material world to the point that it may no longer bear the weight of this kind of scrutiny. The intensity with which Kleist embraced and advocated empiricism did not allow any degree of scepticism.

In the late eighteenth century Kleist was not alone in believing that empiricism offered incontrovertible truths about nature, that nature was knowable. Nature, as a term and as a concept is extraordinarily elusive. Raymond Williams even goes so far as to state, ‘**Nature** is perhaps the most complex word in the language,’³⁹ and he addresses the history of its usage, suggesting that by the eighteenth and nineteenth centuries:

Nature [...], was often in effect personified as a constitutional lawyer. The laws came *from* somewhere, and this was variously but often indifferently defined; most practical attention was given to interpreting and classifying the laws [...] This was the decisive emergence of sense [...] nature as material world. But the emphasis on discoverable laws [...] led to a common identification of Nature with Reason: the object of observation with the mode of observation.⁴⁰

This is a useful account of the thinking at work in Kleist’s application of empirical method, where nature is coupled with reason and the knowledge derived from that observation of nature is reason. For Kleist there was no

³⁹ Raymond Williams, *Keywords: A Vocabulary of Culture and Society*. (London: Fontana Press, 1983), p. 219. Use of bold type Williams’s emphasis.

⁴⁰ *Ibid.* pp. 222–23. Williams’s emphasis.

particular interest in ideas of human nature or seeing nature as sublime,⁴¹ therefore, an aesthetic inquiry can be discounted from his view. Kleist tries to be organised and ordered and sets out to be rigorous in his application of empirical method to these observations derived from nature as natural philosophy (science). In the arch letter he builds an argument for empirical method; however, it is unclear where this will lead, and while he makes a case for this method, there is no thesis to which it is attached. Nevertheless, in identifying himself as an empirical thinker, Kleist aligns himself with epistemology and the natural philosophers.

By the time Kleist reaches the top of the third page of the letter, where he describes the arch that remains standing because the potential force of the stones propels them downwards *at the same time*, there are more crossings out and underlinings than in the earlier pages of the letter. The words ‘keine Stütze’ (no support) and the sentence: ‘Es steh, antworte ich, weil alle Steine auf einmal einstürzen wollen’ from ‘weil’ (because all the stones want to *collapse at the same time*), and the final point about the arch, ‘lernen von der Natur’ (learn from nature) are underlined. There are some trips with the ink where the nib has caught the paper. Words have been added in with a curved, fluid line indicating changes. The letter seems to become more intense; this is how Kleist ends the analogy of the arch:

[...] from this thought I derived an indescribably heartening consolation, which stayed by me right up to the decisive moment: I too would not collapse, even if all my support were removed!
That, my dear Minna, no book could have told me, and I call it a *true lesson from nature*.⁴²

This belief in the truths identifiable in nature underlines both Kleist’s sense that there was no other way of thinking – this suggests faith in the knowledge originating from observation of the world he has experienced – and belief in his own contribution to knowledge derived from his empirical observation.

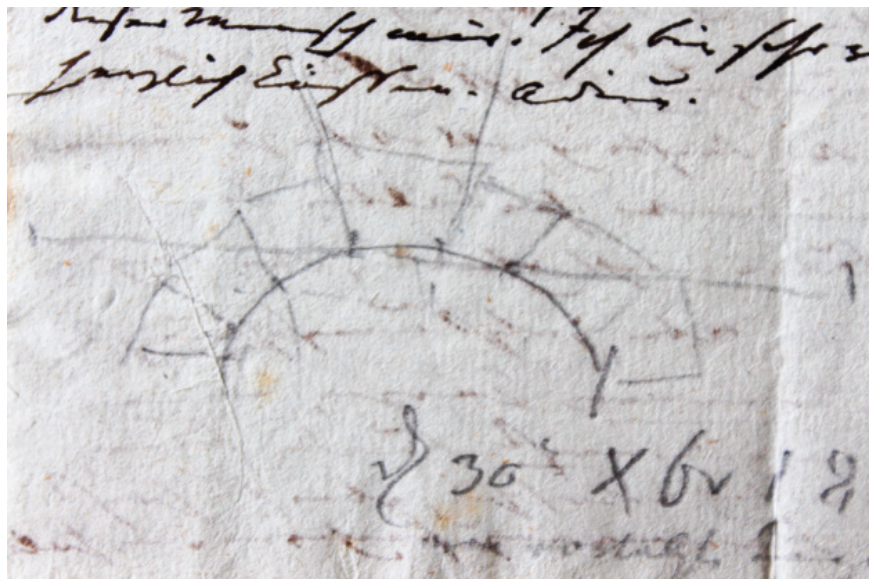
The second part, on 18 November, begins by outlining how questions are proposed and evidence construed. He personalises the address by consolidating his emphatic instruction of Wilhelmine, that she must be a ‘true observer of

⁴¹ Kleist does not pursue a notion of nature connected to theories of the sublime or the aesthetics suggested by David Hume’s ‘Standard of Taste’ 1757 or Edmund Burke’s ‘A Philosophical Inquiry into the Origin of our Ideas of the Sublime and the Beautiful’ 1757, arising from the Scottish Enlightenment. Roy Porter begins Chapter 13 ‘Nature’, in *Enlightenment*, stating that ‘The key Enlightenment concept was Nature’, Roy Porter, *Enlightenment* (London: Penguin Books, 2000), p. 295. However this is located in the aesthetics of Hume, and especially Burke, and specifically not science, nor the contemporary term: ‘natural philosophy’.

⁴² Kleist, *An Abyss Deep Enough*, p. 76. Kleist’s emphasis.

all phenomena',⁴³ that the reason she has eyes is to observe, and that she must write everything in a notebook, then offers excruciating analogies to what he imagines are experiences from her life, such as going out for walks on her own, or at home cooking, knitting and washing.⁴⁴ Further empirical examples are analysed, such as the properties of a concave mirror. Throughout, there is a sense that Kleist is moulding and forming Wilhelmine not just for marriage; but also in the pursuit of the knowledge that he valued above all else. On 29 November, immediately following this letter, he noted his pleasure in Wilhelmine's 'avid acceptance of my suggestions for your education.'⁴⁵

On the second, smaller sheet of paper the writing seems hastier, as though the ideas were developing and coming more quickly. Halfway down the seventh page of the letter he has fitted in extra words at the edge of the page – thinking, refining the idea, the question, cramming more in. The last page of the letter is three-quarters filled. There is an affectionate conclusion and postscript. There is an ink smudge, and excess ink has filled two of the round letterforms, not quite a blot. At the end there are only the most cursory initials, as though the self-referential quality of a signature was unimportant.



1.9 Kleist letter, arch drawing detail, added 30 December 1800. Photograph, Jane Madsen

The small pencil drawing of the arch is fitted into less than half of the quartered folded page at the end of the letter. The ink from the previous page bleeds through. It is a provisional diagram of the arch, a sketch. It is not composed as a finished drawing. The geometry of the arch is outlined; the dominance of the keystone at the centre is anchored by two heavier marks at the lower corners. The way the keystone has been drawn – with light, thin lines coming out of the top – makes it look as though it is about to be unlocked from the arch, and taken away, which would cause collapse. The voussoirs on either

⁴³ Ibid.

⁴⁴ Kleist, *Sämtliche Werke und Briefe*, pp. 593–96.

⁴⁵ Kleist, *An Abyss Deep Enough*, p. 81.

side of the keystone are tightly locked into the arch. There are marks indicating downward movement. It is insightful to see how the marks were made: the curved line under the arch is the darkest and most pressed line, as is the defined mark at the bottom right corner of the curve. The six quick short lines under the arch are light and nearly imperceptible, though as marks of movement they indicate downward thrust, suggestive of the potential for collapse at any time.

The line bisecting the arch immediately under the keystone and stretching beyond the drawing of the arch as a whole contradicts the practical purpose and expected intention of a diagram or architectural drawing. This horizontal line performs no geometric or diagrammatic function – it is entirely conceptual. This line traverses the drawing and has two upright marks at each end, pinning down the drawing as though it needed to be held in place, that it might slip away or collapse. The horizontal line generates another element, something unknown, it seems to question the dominance of the keystone at the centre, and the axis and stability of the arch becomes uncertain. Whether intentional or inadvertent, in making this conceptual line Kleist transfers the drawing of the arch from practical geometry to one of uncertainty and experimental ideation.

The observation about the collapsing arch is both an allegorical reference to his emotional state of being in relation to his betrothal to Wilhelmine, and at the same time is empirical and rational, material and visual. Underlying all this is a sense that he believes he has ingeniously formulated two positions simultaneously. Although the drawing is a provisional sketch, it was a dated addition with the comment: '30t Xbr 1800 am vorletzten Tage im alten Jahrhundert' (30 December 1800 almost the last day of the old century).⁴⁶ The addition of the notation of time, imminently poised on a new century, added a quality of uncertainty. The use of pencil was unexpected: it hinted at potential insights for interpreting the addition of the drawing as being part of a discussion, resolving a query, or as explanation. Perhaps Kleist added it when he and Wilhelmine were together, in order to clarify how the arch may collapse.⁴⁷ The shadow of this observation is the idea that the arch may one day fall, and that in the paradox of why it stands are the seeds of its own demise: that it may yet collapse.

⁴⁶ Author's translation.

⁴⁷ According to Kleist's letters, which provide a rough map of his whereabouts, he wrote to Ulrike von Kleist from Frankfurt an der Oder in December 1800. See Appendix.

2. Kleist and the collapse of empiricism

Kleist had read at least some of Kant's pre-critical philosophy. Two months before the arch letter Kleist wrote to Wilhelmine instructing her on the role of women:

All genuine enlightenment of womankind depends finally on one thing: she must be able to reflect on the purpose of her *earthly life*. To reflect on the goal of our existence for all eternity, probing whether mankind's ultimate purpose is the highest happiness, as *Epicurus* thought, or the achievement of perfection, as *Leibniz* believed, or the fulfilment of dry Duty, as *Kant* assures us – such speculation is unfruitful even for men, often even destructive.⁴⁸

This indicates that Kleist had read work from Kant's pre-critical philosophical writing from the period prior to the *Critique of Pure Reason* of 1781. This earlier reference may possibly refer to Kant's work on moral philosophy. In Chapter Two I argue that Kleist's first engagement with Kant may not have



1.10 Kleist portrait, charcoal / chalk drawing by Anton Graff c.1808. Kunsthau Zurich.

⁴⁸ Kleist, *An Abyss Deep Enough*, p. 63. Kleist's emphasis.

been only with moral philosophy, but the more epistemological natural philosophy. Notably, the comment above suggests that at that stage Kleist was not overly impressed by Kant's writing. Just before the arch letter, Kleist wrote to Wilhelmine on 13 November proposing various fanciful schemes for gainful positions, including going to Paris and '...transplanting the newest philosophy in that knowledge-hungry land [...]';⁴⁹ generally regarded to be referring to Kant.⁵⁰ In a letter to Ulrike on 14 August 1800, Kleist requested that his sister: 'Send me my paper on the Kantian philosophy, which you have, and also the cultural history, which Auguste has – but immediately.'⁵¹ Therefore, Kleist was not entirely without knowledge and experience of Kant's writing when he studied the unspecified and unidentified *Critique* a few months after this request. As a student and an educated and enlightened thinker Kleist would have expected to read Kant as the 'newest' contemporary philosopher.

By the time he wrote the following to Ulrike from Berlin on 5 February 1801, it is clear that the *lebensplan*, the search for a meaningful way to be in the world, had completely fallen apart:

My condition of inner uncertainty has been unbearable, and to reach a decision I have resorted to the means by which that Roman in the tent of Porsena forced the monarch, wavering in his tent over the provisions of a peace offer, to come to a decision. He drew a circle, in chalk, you remember, around himself and the king, and declared that neither of them would cross it until a decision, either for war or peace, had been reached. I did almost the same. I resolved not to leave my room until I had decided on a definite life plan; but eight days passed and in the end I had to leave my room after all, and undecided as ever.⁵²

There is something faintly mordant in the last line here, as though he can derive some humour, however grim, from observing himself in the situation of abject indecision. In addition, his attempt at resolution of the situation concerning the failure of his *lebensplan* was a spatial one: using the example of the chalk circle, he remained in his room until he had thought of another *lebensplan* but could not find a solution. His trepidation of life without a plan, previously articulated to Ulrike, had come to fruition:

[...] the condition of being without a life plan, without a firm vocation, forever hesitant between uncertain desires, ever in contradiction to my

⁴⁹ Ibid. p. 75.

⁵⁰ Ibid. See translators note, which acknowledges that Kant had not yet been translated into French; also Maass, *Kleist: a biography*, p.8, notes that Kleist was fluent in French from an early age.

⁵¹ Kleist, *An Abyss Deep Enough*, p. 38.

⁵² Ibid. p. 91.

sense of duty, a plaything of Chance, a puppet on the string of fate [...]⁵³

This indicates that his *lebensplan* was based on the belief that he could successfully exert a rational determination over the course of his life. Thus, the *lebensplan* was based on an epistemological understanding of the world, and, with the loss of empiricism there is no *lebensplan*. The collapse of his life plan is also a failure of thought itself for Kleist. Several weeks later, on 22 March 1801, he vents the whole catastrophe of his thoughts to Wilhelmine:

Yes, my thoughts have indeed been revolving around a central question that has preoccupied my innermost soul; it has had a deeply shattering effect upon me [...] I had already as a lad [...] adopted the idea that Perfection is the goal of creation. [...] These goals, the collecting of Truths and the acquiring of Education, were so sacred to me that for them I made the costliest sacrifices. You know what these were. But I must come to my point. I recently became familiar with the more recent so-called Kantian philosophy, and I may impart one of its leading ideas to you without fear of its shattering you as deeply, as painfully as it has me.⁵⁴

And so Kleist has read Kant's critical writing, and his previously held convictions about truth have collapsed. However, in the lead up to the remark about Kant in this passage, Kleist makes revealing insights into the previously held convictions and the modes of thought and reasoning he operated within. For example, his comment about reading and following Wieland's principles suggests an earnest belief in the idea that if he drove himself hard enough in his pursuit of knowledge and education then 'Perfection' would follow.

This idea of 'perfection' was both connected to the *lebensplan*, as well as the aspiration of perfectability, a doctrine that had its origins in the Lutheran movement of Pietism.⁵⁵ Consequently, this suggests that for Kleist empiricism

⁵³ Ibid. pp. 27–28.

⁵⁴ Ibid. pp. 92–95. Note on chronology: if the time is strictly followed it would put the letter to Ulrike of 5 February 1801 as prior to reading the 'Kantian philosophy' but that seems unlikely, rather that the idea of 'three weeks past' mentioned to Wilhelmine is generalized. When Kleist began to read Kant, he was studying mathematics, logic and philosophy in Frankfurt an der Oder; but seemingly (and surprisingly) had not been exposed to Kant's *Critiques*.

⁵⁵ Pietism: a movement within Protestantism especially emerging from Lutheran thought, 'stressed emotional religiosity and the development of the inner life', in Hans Reiss introduction in Immanuel Kant, *Kant: Political Writings*, ed. by Hans Reiss, trans. by H.B. Nisbet (Cambridge: Cambridge University Press, 1991), p. 1. Reiss notes that Kant's parents followed Pietist beliefs. The central theme of Pietism was that faith was an inner or subjective experience with an emphasis on practical action or service. Gawthorp suggested that Pietism determined the development and cohesion of Prussia as a state because it created the cultural condition of the ideology of service through the Pietist values of duty, work and prayer, suggesting that Prussia, and subsequently the

was not just the epistemological cornerstone of natural philosophy, but that the ‘truth’ derived from it was ‘sacred’ and intended to take him into the realms of the world to come, raising the question as to whether Kleist’s attachment to the perfectibility of truth was fanatical.

Continuing in the same letter, Kleist immediately follows with the statement:

If everyone saw the world through green glasses, they would be forced to judge that everything they saw *was* green, and could never be sure whether their eyes saw things as they really are, or did not add something of their own to what they saw. And so it is with our intellect. We can never be certain that what we call Truth is really Truth, or whether it does not merely appear so to us. If the latter, then the Truth that we acquire here is *not* Truth after our death, and it is all a vain striving for possession that may never follow us into the grave.⁵⁶

The example that Kleist uses here is intensely visual. It is both strangely modern – the analogy of the ‘green glasses’ is suggestive of tinted lenses from film and photography to sun-glasses – and simultaneously ancient, in the correlation with Saul on the road to Damascus: ‘And immediately there fell from his eyes as it had been scales: and he received sight forthwith [...]’.⁵⁷ Whichever way this analogy is interpreted, reading Kant was an epiphany for Kleist and he saw the world differently. In this painful question marking the transition in understanding as to whether what Kleist sees is the same as what another person would see, the ‘green glasses’ analogy demonstrates the shift from an objective view of the world to a subjective one and, as such, is a remarkable example that develops and establishes the concept of the modern subject in visual and perspectival terms. The analogy of the ‘green glasses’ of what one individual sees, or what the appearance of things may be is a key example that clarifies and characterizes the modern subject, and because of this internal state identified and analysed by Kant, one can no longer speak for *all* observable knowledge but only of what one individual can absolutely know for sure, what one has seen and observed and the way that knowledge has been acquired. The concept of the ‘green glasses’ covering the eyes of one person and determining what and how they see succinctly expresses Kant’s proposition about certainty conditioning the subjective. The metaphor of the ‘green glasses’ demonstrates that material and visual examples from nature were no longer necessarily able to teach Kleist anything about which he could be certain.

modern state of Germany reached back to Lutheran Pietism. See Introduction, Chapters 1, 4 and 8 in Richard L. Gawthorp, *Pietism and the making of eighteenth-century Prussia* (Cambridge: Cambridge University Press, 1993)

⁵⁶ Kleist, *An Abyss Deep Enough*, p. 95.

⁵⁷ Acts 9.18, King James Version.

The material and visual world had been important to Kleist through his extrapolation of looking and seeing. Previously, a visual metaphor was attempted in the second part of the arch letter to Wilhelmine, when he tried to illustrate an idea of truth and purity using the analogy of the mirror saying, '[...] the *external* (the nearer) side of the mirror is not really its most important part [...], the *inner* (the further) side is what counts most if the reflection is to be pure and true [...]'.⁵⁸ This idea of the two layers or sides of the mirror seems to be more sophistry than an effective analogy demarcating an idea about the mirror's potential to represent truth for, and of, the individual reflected. Nevertheless, the metaphor is conjured from visual imagery and leads to questions of seeing and the appearance of things. It was through faith in the visual, material world – of what he saw before his eyes, especially in nature, the history of natural philosophy, and constructions such as the arch, that Kleist had derived his concept of 'Truth'. Kleist had reasoned a theory of knowledge based on an idea that what is knowable can be demonstrated, because the capacity of the visible world of nature offered empirical truths. In this letter Kleist saw no problem in using the mirror as a metaphor depicting truth, yet he failed to question what kind of truth the mirror can hold, and whether indeed the mirror can offer any kind of truth. Yet, despite working with the metaphor and becoming more ambivalent about what certainties it may deliver Kleist does not question this concept of the mirror and its potential for consciousness as assiduously as it was by other contemporary post-Kantians, such as Novalis, who commented: 'Image and being change. The image is always the inverse of being. What is right on the person, is left in the image.'⁵⁹ According to Manfred Frank, Novalis argues that while the mirror confirms the conscious being, it is compromised because we '[...] misrecognize our identity as the interplay of two reflections, an I-subject and an I-object'.⁶⁰ In this way Novalis uses the idea of the mirror to question how the conscious subject is determined and perpetually misconstrued.

The problem of the Kantian 'despair of the truth'⁶¹ is addressed by Nietzsche, who offers a critical viewpoint on Kant and the thinking of the late eighteenth and early nineteenth centuries mediated from the perspective of German philosophy seventy-five years later. In his 1874 essay, 'Schopenhauer as Educator', Nietzsche argues:

⁵⁸ Kleist, *An Abyss Deep Enough*, p. 77.

⁵⁹ Quoted in Karl Ameriks and Dieter Sturma, eds., *The Modern Subject: Conceptions of the Self in Classical German Philosophy* (Albany: State University of New York Press, 1995), p. 84. [from *Novalis Schriften; die Werke Friedrich von Hardenbergs*, vol 2, p. 142]

⁶⁰ Manfred Frank 'Philosophical Foundations of Early Romanticism', in *Ibid.* p. 75.

⁶¹ Friedrich Nietzsche, *Untimely Meditations*, ed. by Daniel Breazeale, trans. by R.J. Hollingdale (Cambridge: Cambridge University Press, 1997), p. 140.

This danger attends every thinker who sets out from the Kantian philosophy [...] If Kant ever should begin to exercise any wide influence we shall be aware of it in the form of a gnawing and disintegrating scepticism and relativism; and only the most active and novel spirits who have never been able to exist in a state of doubt would there appear instead that undermining and despair of truth such as Heinrich von Kleist, for example, experience as the effect of the Kantian philosophy. “Not long ago”, he writes in his moving way, “I became acquainted with the Kantian philosophy” – [...] ⁶²

These are intriguing observations concerning the uncertainty of truth laid down by Kant, and Nietzsche is sympathetic to their shattering effect on Kleist. Additionally, Nietzsche’s quote from Kleist’s letter to Wilhelmine not only contributes to the body of critique censuring Kant, but also demonstrates the circulation and readership of Kleist’s collected letters. Nietzsche maintains that Kleist and Hölderlin ‘were ruined by their uncommonness’,⁶³ and says with reference to Kleist that ‘[...] the most terrible antidote to uncommon men is to drive them so deep into themselves that when they re-emerge it is always as a volcanic eruption’.⁶⁴ Nietzsche suggests that the way that Kleist read Kant is significant, and that there was, however, a way of avoiding the terrible eruption within that came, though too late for Kleist, in the form of the guidance offered by Schopenhauer, ‘[...] the leader who leads us from the depths of sceptical gloom or criticizing renunciation up to the heights of tragic contemplation’.⁶⁵ This was achieved in the way that Schopenhauer identified, contemplated and explored his own subjectivity and extrapolated this experience to all.⁶⁶ In the preparatory, unpublished notebooks from 1873 Nietzsche notes his thinking on Kleist, that following his reading of Kant he suffered from ‘an excess of thought’⁶⁷ and that these tormented thoughts were ‘ineffectual’⁶⁸ because he was ‘lacking Schopenhauer’.⁶⁹ Notably, Nietzsche took Kleist’s struggle with Kant more seriously than later writers. Nietzsche provides an effective, historically located commentary on how Kleist read Kant, as he identifies

⁶² Ibid. Kleist was an important reference for Nietzsche. In 1859, when he was fifteen, Nietzsche was pleased to receive Kleist’s collected works as a Christmas present, see: Curtis Cate, *Friedrich Nietzsche* (London: Hutchinson, 2002) p. 22. Kleist’s anecdote ‘Prayer of Zarathustra’ published in 1810 is a possible source for Nietzsche’s *Thus Spoke Zarathustra* (1883–1885).

⁶³ Nietzsche, *Untimely Meditations*, p. 138.

⁶⁴ Ibid. p. 140.

⁶⁵ Ibid. p. 141.

⁶⁶ See Nietzsche, ‘Schopenhauer as Educator’, Part 1, in *Untimely Meditations*, pp. 127–30. Nietzsche outlines his thoughts on the way the conscience should be followed “ ‘Be yourself!’ ”, p. 127.

⁶⁷ Friedrich Nietzsche, *Unpublished Writings: from the period of ‘Unfashionable Observations’*, trans. with an afterword Richard T. Gray (Stanford: Stanford University Press, 1999), pp. 284

⁶⁸ Ibid. pp. 284 and 297.

⁶⁹ Ibid. p. 274.

where the paths of thought from Kant to his own writing can be traced via Schopenhauer.

The collapse of truth was the key to the breakdown of Kleist's thinking, yet Maass asks how '[...] so intelligent a young man had never reflected on the relativity of human truths' and in part answers this question by suggesting that Kleist held on to the 'mystical truth-cult'⁷⁰ from his youth. Therefore, for Kleist, truth was incontrovertible and had an objective, almost material quality, so that when he compiles the list of empirical truths he has gathered for Wilhelmine, they are collectible entities that (apparently) cannot be dismantled. Kleist's letters to Ulrike and Wilhelmine after he read Kant's *Critique* offer a thought-provoking insight into the way in which he grappled with and understood Kant's concept of subjectivity and the construction of the modern subject. While the problem for Kleist scholars is focused on *what* he read of Kant's critical writing, it should perhaps be questioned *how* he read the *Critique(s)*. Was Kleist's reading of Kant more singular than that of anyone else at the time? That Kant was read in multiple ways during his lifetime and immediately thereafter is the initial premise advanced by Ameriks when he identifies 'the phenomenon of a lack of consensus in the interpretation of Kant's philosophy'.⁷¹ This was demonstrated in the earliest elucidations of Kantian thought, especially by Reinhold and Fichte⁷² who did much to establish the concept of the modern subject, yet did so differently. The last two decades of the eighteenth and the first two decades of the nineteenth centuries were an intensely productive period for German philosophy, during which time the response to Kant's *Critiques* generated the work of the Kantians, Reinhold and Fichte; and the post-Kantians, Hölderlin and Novalis; shaped the work of the Jena Romantics, such as Friedrich Schlegel, and also impinged on the subsequent work of Schelling and Hegel – points of view and perspectives changed rapidly. From the time of the publication of the first *Critique* in 1781, the figure of Kant looms large. German philosophical writing was contingent upon how Kant changed philosophical thought. This was the time and place in which Kleist lived⁷³ and his collision with Kantian thought seems inevitable, or

⁷⁰ Maass, *Kleist: a biography*, p. 35.

⁷¹ Karl Ameriks, *Kant and the Historical Turn: Philosophy as Critical Interpretation* (Oxford: Clarendon Press, 2006), p. 32.

⁷² Karl Leonhard Reinhold (1757–1823) published 'Letters on the Kantian Philosophy' in *Der Teutsche Merkur* in 1786; was the first chair of critical philosophy dedicated to teaching Kantian philosophy at Jena in 1787. Johan Gottlieb Fichte (1762–1814) *Wissenschaftslehre* (*Doctrine of Scientific Knowledge*) (1790) extrapolated a scientific system of knowledge in the Kantian mode. Fichte was Jena's second chair of critical philosophy in 1794. Jena was a unique site for philosophy and the origins of Romantic thinking until it fell to Napoleon's army in the Battle of Jena in October 1806.

⁷³ A short time later Kleist moved in literary and philosophical circles making connections especially with the Jena Romantics – he knew Novalis's brother, August von Hardenberg. The von Hardenberg family gave Kleist access to Novalis's papers in order to prepare and publish them, see Maass, *Kleist: a biography*, p. 137. Kleist also knew August Schlegel, and Friedrich Schlegel (mentioned in a

at least difficult to avoid. By the time Kleist read Kant's critical philosophy, the first *Critique* had been published for twenty years.

Most literary critics are broadly in agreement that Kleist suffered badly after reading Kant's critical writing early in 1801. This period in his life has been referred to as the 'Kant crisis'. Some Kleist scholars from the *Germanistik* field are rather dismissive of Kant's effect on Kleist, such as Ensenberg, who asserts that since it is unclear which of Kant's *Critiques* Kleist read, Kant is therefore not significant.⁷⁴ This is demonstrably not the case, particularly if Kleist's decade of writing from 1802 to 1811 is positioned historically, as it occurs immediately after reading Kant's critical writing, and within the phase of the fervent expansion of German philosophical thought. In discussing this further, Mehigan weaves an equivocal argument concerning the significance of Kant to Kleist, stating that Kleist '[...] though arguably a philosophical mind, was no actual philosopher'.⁷⁵ Mehigan's argument is contingent upon his over-determined assessment of Kant's response to Hume's thoughts on scepticism; and that Hume's scepticism was consequently the more significant strand of thinking, because it was in turn absorbed and addressed by Kant. Mehigan claims that subsequently, this infected Kleist's thought – even though there is no evidence that Kleist actually read Hume.⁷⁶ Through this, Mehigan works to retrieve and foreground Hume over Kant via the concept of scepticism. This is not to say that scepticism was not important for Kant (or even Kleist), but it is not as pivotal as Mehigan claims. However, contra to Mehigan's perspective, if Kleist's writing is considered in terms of his connection to Kant through the idea of uncertainty as it appears both pre- and post-*Critique*, then a clearer trace of the collapse of the foundations of pre-determined thought and concepts of the veracity of truth can be drawn from Kant to Kleist's thinking. Uncertainty is the repeating motif of the territory Kleist's characters inhabit, whereby the collapse of certainty creates an arbitrary, cruel and violent world from where there is little or no hope of transcendence. Theories of uncertainty define Kleist as a writer.

letter to Adolfine von Werdeck, 29 July 1801, *An Abyss Deep Enough*, p.122). Ludwig Tieck staged one of Kleist's plays and later collected his letters. It is possible that Kleist may have encountered Reinhold as he met and stayed with Reinhold's father-in-law, the poet and philosopher, Christoph Martin Weiland.

⁷⁴ Quoted and referred to in Timothy J. Mehigan, *Heinrich von Kleist: Writing after Kant*. (Rochester, NY: Camden House, 2011), p. 16.

⁷⁵ Ibid. p. 5.

⁷⁶ Mehigan asserts the importance of Hume: 'While Kleist scholarship has been unsuccessful in determining which of Kant's texts led to the sceptical turn in Kleist's thinking there may be some grounds for the view that Kleist discovered such scepticism in the very assumptions that Kant used to construct his philosophy. [...] In this sense it could be argued that Kleist reads beyond Kant to Hume', Ibid. p. 38. Mehigan argues backwards from Kant to Hume. For Kant, Hume is of interest especially in the revised 'Transcendental Aesthetic' pp. 138, 146, 225 and in Kant's 'Transcendental Doctrine of Method' in *Critique of Pure Reason*, pp. 627–704.

It has been suggested by some critics and commentators about Kleist⁷⁷ that the purported ‘Kant crisis’ induced Kleist to write. However, rather than accepting the equation of *Kant* = *writing*, it is more that Kleist’s tormented transition between empirical and critical thinking became the foundation, as well as the tenor and the themes he explored in his writing, and not the impetus for writing *per se*. The evidence of the letters already demonstrates that he is a writer, and had begun to think of himself as such; for example, his request to both Wilhelmine and Ulrike to keep his notes shows that Kleist was collecting material for his later use as a writer.⁷⁸ The recognizable modernity in Kleist’s so-called ‘crisis’ is that even though it was problematic for him, he nevertheless learned from Kant’s *Critiques*, and he engaged with these contemporary ideas, however reluctantly. In the letter of 13 November 1800, written to Wilhelmine immediately before the arch letter, Kleist acknowledged:

[...] I have certain abilities, I mean uncommon abilities – I believe this because no field of knowledge seems too difficult for me, because I make quick progress, [...] – and, finally, I believe it because others assure me it is true. [...] Then for my future the entire field of writing would stand open to me. I feel that I would be very pleased to work at it.⁷⁹

This reveals several things: that the new philosophical thinking from Kant would subsequently pose no intellectual difficulties for Kleist; that people around Kleist considered him as a remarkable intellect;⁸⁰ and that his self-perception as a writer was becoming more fixed in Kleist’s mind – importantly, this pre-dates his reading of Kant’s *Critique*. While reading Kant caused Kleist considerable anguish, and made him wretched and miserable, he nevertheless understood the implications of Kant’s *Critique* and faced them squarely. Perhaps that is part of the modernity of his thought: that he could not go back to his previous guileless certainty to a state of unknowingness, he could not un-learn the insights gained from Kant’s critical philosophy. An epiphany is not necessarily a positive or pleasurable experience; thus, reading Kant was revelatory, and though he abhorred the implications of Kant’s *Critique*, nevertheless the new way of thinking became important for Kleist’s development, yet did not on its own cause Kleist to become a writer.

Apart from the letters, Kleist’s only substantial writing prior to reading Kant’s

⁷⁷ See for example: ‘Kleist’s “Kant Crisis” and Its Consequences’, pp. 15–32, in Mehigan *Heinrich von Kleist: Writing after Kant*; and also Luke and Reeves’s introduction, in Heinrich von Kleist, *The Marquise of O– and other Stories*, trans. and introduced by David Luke and Nigel Reeves (Harmondsworth: Penguin, 1978), pp. 9–10. Kleist’s reading of Kant’s (unnamed) *Critique* in 1800 is generalised, described and accepted by the shorthand term: the ‘Kant crisis’.

⁷⁸ See Note 17, Kleist, *An Abyss Deep Enough*, p. 57.

⁷⁹ Ibid. p. 74–75, letter to Wilhelmine 13 November 1800.

⁸⁰ See Maass, *Kleist: a biography*, p. 126.

Critique was the essay - *Aufsatz, den sichern Weg des Glücks zu finden und ungestört – auch unter den größten Drangsalen des Lebens – ihn zu genießen* (Essay on the secure way to find happiness and undisturbed – also among the greatest hardships of life – to enjoy it) (1798). This was a very long and rambling piece of prose. It is not a particularly good work of writing or thinking, and is no indication of what kind of writer Kleist would later become. The primary importance of this essay is its epistolary style, where the mode of address ‘*mein teurer Freund*’ [my dear friend] to no one in particular marks a transition between the letter and the essay. Ultimately, through the subjectivity of the letters to Ulrike and Wilhelmine, Kleist has personalized and documented, in intensely modern terms, his intellectual struggle as he grapples with himself as an autonomous subject. In the intimate, subjective space of the letters to Ulrike and Wilhelmine, and later to Marie von Kleist, there is a sense of rawness where the protective layer put on for the world has been peeled off, though Kleist may not have had much of a protective layer in the first place. Perhaps part of Kleist’s wretchedness lay in mourning the loss of his old thinking – but what has he really lost? He has lost a particular style of reasoning based on empirical observation, one already abandoned by his contemporaries who had read and worked with Kant’s critical philosophy.

Possibly as a consequence, Kleist abandoned his studies in natural philosophy and mathematics. However, Kleist may not have been so totally immobilised by his loss of conviction in empiricism. In the letter to Ulrike of 5 February 1801 it is clear that he has indeed read the ‘Kantian paper’, to which he previously referred:

The very pillar totters that I have clung to in this whirling tide of life. I mean my love for the pursuit of knowledge. But once again how may I ever explain myself? [...]. *Knowledge* cannot possibly be man’s highest: to *do* is better than to *know*.⁸¹

In this part of his letter to Ulrike, he describes in architectural terms how the previously solid pillars of knowledge are now in a state of collapse, yet at the same time the image of clinging to a pillar is in itself suggestive of desperation and uncertainty. This is a compelling architectural analogy of collapse, of architecture in the moment when it fails and is teetering towards its imminent downfall as collapse. However, he seems to find it too unbearable to confront the result that his ‘pursuit of knowledge’ has yielded something unexpected: an entirely new form of knowledge – that of uncertainty. Yet, the outcome was not totally bleak, because further down this paragraph he says:

⁸¹ Kleist, *An Abyss Deep Enough*, p. 93. Kleist’s emphasis.

[...] must I go from one field of study to another, always swimming on the surface and never touching the depths? And so the pillar totters. Of course I have a store of ideas in answer to all this confusion. As yet, none of them is ripe.⁸²

At the very moment when Kleist's previous thinking has collapsed, he is already acknowledging that ideas are emerging that 'answer' his internal state of 'confusion' and uncertainty, and are productive. This letter to Ulrike suggests that, while Kleist's struggle with Kant is significant, it is the way in which the *Critique* engenders 'a store of ideas' that demonstrates he is thinking his way out of the dilemma with Kant through the search for a new language to 'explain myself', which is of more significance for Kleist as a reader and a thinker. As a consequence, Kleist begins to rebuild his sense of what is knowable, while mourning the loss of his previous certainty. Six months later he wrote to a friend:

[...] when a ruthless destiny distracts us, [...] when necessity compels us to think, to die, to act; when new ideas appear but to vanish once more [...] if then at moments, fleetingly, with spent soul we climb the cherished ruins to pluck the little blossom of remembrance, but find here too that all is empty and waste, the finest hewn blocks in dust and ashes, the few last columns on the verge of collapse, the entire monument structure level, finally, and flat like the plain on which it has stood [...] ⁸³

It is through the use of architectural terminology and material ideas that Kleist is able to portray the scale of the destruction of his previous mode of thinking, where empiricism had been used to build elaborate metaphors. It is for this reason that the concept of *collapse*, rather than the confusion and immobility of 'crisis', is a more effective representation of the internal ferocity of the change in Kleist's thinking, which quickly became externalized through his writing, as letters and then as literature. This outcome was always a possibility, since his empirical observation of the collapsing arch anticipated that potential, where collapse was a material and external imminence.

The reference to architecture and the imminent collapse of the stones of the arch did not disappear from Kleist's thinking after his encounter with Kant's *Critique*; it later appeared in *Penthesilea*,⁸⁴ where one of the main characters addresses the queen of the Amazons:

⁸² Ibid. p. 93.

⁸³ Ibid. p. 117.

PROTHOË [...] If the whole weight
 Of hell bears down upon you, do not falter!
 Stand, stand as does the vaulted arch stand firm
 Because each of its blocks inclines to fall!
 Present your head, the keystone, to the gods
 And all their gathered lightening, and cry: Strike!
 And let yourself be split from head to toe,
 But do not waver in yourself again
 So long as one breath still has power to bind
 The stones and mortar in this youthful breast.⁸⁵

The reference to the arch is threefold: it recalls the analogy of the collapsing arch in the letter to Wilhelmine, it reprises the notion that the arch wants to collapse, and also invokes the architecture of classicism. Kleist uses the historic location of the play to scratch back the surface of classicism in order to find collapse as the chaos represented in *The Iliad*, suggesting that everyone loses. In addition, this subverts of the classicism of Goethe and Schiller.

For Kleist the questions concerning the certainty of knowledge persisted throughout his writing, even to his late, and best-known, essay, *Über das Marionettentheater* (*Concerning the Marionette Theatre*).⁸⁶ The essay plays with concepts and formations of knowledge. This curious and compelling piece is written as a remembered dialogue between Herr C., the chief dancer from an unnamed opera, and the protagonist recording and remembering the exchange. As with the arch letter, Kleist aggregates a series of examples to demonstrate this: the marionette on strings held by another; dancers in the theatre; a youth who becomes fettered by the acquisition of self-consciousness; and a bear that intuitively parries a fencing master. This essay creates an ominous and uneasy atmosphere. The two speak of the nature of the marionette; the dancer says that its ‘advantage’ over a real dancer is that

⁸⁴ *Penthesilea*. Neunter Auftritt (scene 9)

PROTHOË [...] So sei's auch wie ein Riese! Sinke nicht,
 Und wenn der ganze Orkus auf dich drückte!
 Steh, stehe fest, wie das Gewölbe steht,
 Weil seiner Blöcke jeder stürzen will!
 Beut deine Scheitel, einem Schlußstein gleich,
 Der Götter Blitzen dar, und rufe, trifft!
 Und laß dich bis zum Fuß herab zerspalten,
 Nicht aber wanke in dir selber mehr,
 So lang ein Athem Mörtel und Gestein,
 In dieser jungen Brust, zusammenhält.

Heinrich von Kleist, *Penthesilea: ein Trauerspiel* [Facsimile reprint of the original edition, Tübingen: Cotta, 1808] (Frankfurt am Main: Insel, 1980), p. 72.

⁸⁵ Heinrich von Kleist, *Penthesilea*, trans. by Joel Agee (New York: Harper Collins, 1998), p. 62.

⁸⁶ Published in the *Abendblätter* from 12 to 15 December 1810.

‘[...] it would be incapable of affectation’.⁸⁷ He tells the protagonist that “Such blunders [...] are unavoidable since we have eaten of the tree of knowledge.”⁸⁸ Through the device of the dialogue-essay Kleist contends that knowledge is knowingness or self-consciousness, and that the mechanics of the marionette creates an intuition, or intuition-in-kind, since the movement of the puppet is removed from, or at the same time, transposed from the dancer operating it. The *Germanistik* literary critic Luanne Frank discusses this proposition, arguing that it is a representation of Kleist’s concept of ‘*Gefühl*, or feeling, intimate personal intuitiveness [...] The marionette doesn’t think, doesn’t reason her way through the dance; her flawless moves are guided by the equivalents of human intuition.’⁸⁹ In this comment, Luanne Frank does not clarify how Kleist applies the concept of *Gefühl* or what is understood as ‘human intuition’ or the origins of this idea. *Über das Marionettentheater* emerges as an encounter of the impossibility of reconciliation between intuition and knowledge. Is Kleist suggesting that intuition exists outside knowledge? While for Kant intuition is the faculty of an object or idea to have a form or representation; is the Marionette therefore an appearance? Or is Kleist suggesting that this a transitory moment between the unselfconscious state and one of self-consciousness, as in the example offered by the protagonist of the Marionette essay about the youth, who together with the protagonist had seen the *Spinario* sculpture of a young man pulling a thorn from his foot;⁹⁰ and later, after swimming, as the youth dried his foot, he recognised the gesture and caught sight of himself and mentioned it to his friend. He tried to repeat the unselfconscious gesture but failed each time, as he was now conscious of his action, as the protagonist recounts:

“From that day, as though from that very moment, an inconceivable transformation began in that young man. He would stand for whole days in front of the mirror; one charm after that other fell from him.”⁹¹

For Kleist, the mirror has now become the instrument for identifying and locating self-consciousness, rather than its previous capacity as a metaphor of truth.

It is arguable that in *Über das Marionettentheater* Kleist is actually proposing something bold, that is, the exploration of the self as it is performed: the

⁸⁷ Kleist, *An Abyss Deep Enough*, p. 213.

⁸⁸ Ibid.

⁸⁹ Luanne Frank, ‘No way out: Heinrich von Kleist’s *Erdbeben in Chile*’, in *The Lisbon Earthquake of 1755: Representations and Reactions*, p. 276.

⁹⁰ Referred to as the *Dornauszieher* or *Spinario* (*Thorn Puller*) anon. bronze, Capitoline Museums, Rome. A version of this sculpture is in the Pergamon Museum, Berlin. Kleist’s essay suggests it is in Paris. See H. W. Janson, *A History of Art* (London: Thames and Hudson, 1977), p.12, Fig 4.

⁹¹ *Über das Marionettentheater* in Kleist, *An Abyss Deep Enough*, p. 215.

puppet, the dancer, the youth by the mirror, and the fencing master, while they are grappling with their conscious selves they are at the same time performing them; and that self-consciousness, or the knowingness of the conscious subject has another layer in performance, but one that has been compromised or failed in the iterations of theatrical repetition. For Kleist each imperfect iteration of a performance becomes one of collapse. Reading *Über das Marionettentheater* in this light, it is possible to draw a link to Novalis's concept, noted by Manfred Frank, that '[...] being is beyond consciousness and the conception of philosophy as an infinite, never ending approximation [...]'.⁹² It can be further extrapolated, as far as Kleist is concerned, that 'approximation' is the persistent problem and the limitation of the performer, and perhaps even of theatre itself. While Novalis was ostensibly writing an appraisal summary in his *Fichte Studien* (1795), according to Manfred Frank, it became more of a critique with 'perspicuity and argumentative agility',⁹³ and the position of 'approximation' was resolved for Novalis where:

[...] the meaning of "being" is essentially "being identical." However, in order to express this identity in the form of a judgement we must step outside of it: we must, Novalis thinks, step outside of it: "We leave behind the *identical* in order to represent it."⁹⁴

This sense of being, where being exceeds consciousness and does not yield any certainty in itself, was iterated in a number of different formations by Novalis; for example, '[c]onsciousness is a being in being outside of being.'⁹⁵ This construction of consciousness by Novalis has a spatial quality, whereby the spaces are created by serial intuitions rather than observations. Novalis further established questions of the subject when he asked:

What do we mean by "I"?
Has not Fichte too arbitrarily packed everything into the I? With what warrant?
Can an I posit itself as *I*, without another I or Not-I – /How are I and Not-I opposable/ ⁹⁶

Novalis demonstrates a capacity for experimentation with concepts of the

⁹² Manfred Frank 'Philosophical Foundations of Early Romanticism', in Ameriks and Sturma *The Modern Subject: Conceptions of Self in Classical German Philosophy* p. 72–73.

⁹³ Ibid. p. 72.

⁹⁴ Ibid. p. 73. [Novalis quoted from *Novalis Schriften: die Werke Friedrich von Hardenbergs* ed. by P. Kluckhohn and R. Samuel, Vol. 4, (Stuttgart: W. Kohlhammer Verlag, 1960/75), p.188]

⁹⁵ Ibid. p. 74. [from Novalis, *Novalis Schriften*, Volume 2, p. 106, quoted in Manfred Frank, 'Philosophical Foundations of Early Romanticism']

⁹⁶ Novalis *Fichte Studies*, ed. and trans. Jane Kneller (Cambridge: Cambridge University Press, 2003) p. 7.

subject. While he did not espouse Novalis's concept of the subject,⁹⁷ Kleist was closer to Novalis's questions of and inquiry into consciousness and found correspondence with Novalis's tough, incisive thinking through the poetics of the aphorisms and notes.⁹⁸

The problem of knowledge experienced by Kleist as the outcome of reading Kant's critical writing had caused an inner collapse from which he never retreated, since he could not return to a state of *unknowingness*. *Über das Marionettentheater* (*On the Marionette Theatre*) ends with the following exchange between the two men, where another mirror metaphor appears:

"[...] just as our image, as we approach a concave mirror, vanishes to infinity only to reappear before our eyes, so will grace, having likewise traversed the infinite, return to us once more, and so appear most purely in that bodily form that has either no consciousness at all or an infinite one, which is to say either a puppet or a god."⁹⁹

This suggests that Kleist had moved closer to Novalis's concept of the mirror, that the metaphors had changed by this late stage of his writing, and that the mirror was now an ambivalent place in terms of the emerging concept of the subject: the mirror had become an uncertain site in which to search for or find consciousness:

"That means," I said, somewhat amused, "that we would have to eat of the tree of knowledge a second time to fall back into the state of innocence."
"Of course," he answered, "and that is the final chapter in the history of the world."¹⁰⁰

Kleist plays with the impossibility of a return to a previous state of *unknowingness*, of a return to 'innocence.' Yet there is a circular play of beginning and end between the Biblical 'tree of knowledge' and the revelation of apocalypse,¹⁰¹ a further assertion of knowledge as collapse. This exploration of knowledge as concepts of knowledge and knowingness, consciousness and innocence, echoes Kleist's own transition from empirical to critical thinking. In his writings on Fichte, Novalis plotted a careful route in relation to concepts of

⁹⁷ See Ibid. pp. 166–72.

⁹⁸ In Dresden in 1807 Kleist started a publishing venture with his two oldest friends – Rühle and Pfuel along with other literary figures; the Hardenberg family made Novalis's complete works available for publication. See Maass *Kleist; a biography*, pp. 124–40, especially p. 140.

⁹⁹ Kleist, *An Abyss Deep Enough*, p. 216.

¹⁰⁰ Ibid.

¹⁰¹ From the Greek: *apokalypsis*; *apo*– 'un' + *kaluptein* 'to cover'. *Oxford Dictionary of English*, Third Edition, (Oxford: Oxford University Press, 2010)

truth, cautioning against '[a]ll searching for *a single principle* would be like the attempt to square the circle.'¹⁰² This had been the method of Kleist's previous empirical mode of thinking, whereby the belief in truth had been singular and universalizing. By the time that Kleist wrote *Über das Marionettentheater* in 1810, consciousness of knowledge was the question pervading his inquiry.

The question of truth as such is not a theme that is explored or recurs in Kleist's fictional writing or plays, whereas the concept of certainty is. Therefore, when he says, 'We can never be certain that what we call Truth is really Truth [...]',¹⁰³ the key point is not so much truth as the *certainty* of truth. The loss of certainty is the collapse that Kleist suffered; he was haunted by uncertainty, and uncertainty became the spectre at the heart of his writing and determined the fate of his characters. Returning to the image of the arch, the inference can be drawn that, throughout Kleist's previous correspondence, certainty is the keystone of his concept of knowledge, and once that was undermined, then the arch of knowledge collapsed. In the themes explored in his fictional writing the collapse of certainty is the means Kleist uses to explicate an arbitrary, incomprehensible and cruel world, in which the state fails its people and violence determines the ill-fated lives of the characters.

3. Kant and the geometry of the arch

Despite the uncertainty as to precisely which of Kant's *Critiques* Kleist read at the time of the so-called crisis in February and March of 1801, it is nevertheless constructive to work with some of the ideas from Kant that appear the most likely to have contributed not only to the source of so much grief for Kleist, but that irretrievably changed his thinking. Kleist's previously held concept of knowledge transmuted from empirical to critical or *a priori*. In the empirical observation Kleist believes he is making about the arch, he simultaneously, and perhaps inadvertently, constructed a spatial and geometrical model that offers scope for further analysis with reference to Kant's critical philosophy. There is much in Kant's writing on the 'Transcendental Aesthetic' that is significant to this discussion of the space of the arch and what the geometry of this space may delineate.

As Kant begins to introduce the idea of the transcendental aesthetic, he lays out the idea that:

The effect of an object on the capacity for representation, insofar as we are affected by it, is **sensation**. That intuition which is related to the

¹⁰² Novalis, *Fichte Studies*, p. 168. Novalis's emphasis.

¹⁰³ Kleist, *An Abyss Deep Enough*, p. 95.

object through sensation is called **empirical**. The undetermined object of an empirical intuition is called **appearance**.¹⁰⁴

There is a sense that Kant is carefully paring away what the expectation of empiricism is and how the object is determined by sensation as empiricism. Kant concludes these introductory remarks by saying that:

In the transcendental aesthetic we will therefore first isolate sensibility by separating off everything that the understanding thinks through its concepts, so that nothing but empirical intuition remains. Second, we will then detach from the latter everything that belongs to sensation so that nothing remains except pure intuition and the mere form of appearances, which is the only thing that sensibility can make available a priori. In this investigation it will be found that there are two pure forms of sensible intuition as principles of a priori cognition, namely space and time, with the assessment of which we will now be concerned.¹⁰⁵

For Kant, intuition is the capacity of the object to be represented, to be representational, and as such, geometry. The empirical intuition as appearance becomes, or has the qualities of, form, though this would only be possible if it is accepted that form is a delineation or marker of geometry. When he refers to ‘the form of appearances’ this suggests the idea of an external shell, and perhaps this external form wraps around the *a priori* cognition or knowledge. Kant begins his discussion of the ‘Transcendental Aesthetic’ by stating what space is not:

- 1) Space is not an empirical concept that has been drawn from outer experiences. [...]
- 2) Space is a necessary representation *a priori*, which is the ground of all outer intuitions. One can never represent that there is no space, although one can very well think that there are no objects to be encountered in it. It is therefore to be regarded as the condition of the possibility of appearances, not as a determination dependent on them, and is an *a priori* representation that necessarily grounds outer appearances.¹⁰⁶

In this way Kant suggests that space is the outward appearance of possibility, of an idea of immanence, that something might come into being, of something impending, but this does not necessarily have to be an actual form, though the latter is not absolutely ruled out. There is, therefore, always the possibility that

¹⁰⁴ Kant, *Critique of Pure Reason*, p.155. Use of bold type Kant’s emphasis.

¹⁰⁵ Ibid. p. 157.

¹⁰⁶ Ibid. p. 158.

an 'object' may at some point be 'encountered in it'. At the same, time he seems to suggest that space is the site or 'ground of all outer intuitions' and a place from where 'intuitions' emerge or become form as geometry.

If, as Kant says above, one can 'never represent that there is no space', how does he contend that there is indeed space? How can this double negative be understood here? Is it that the idea that the 'never' and the 'no' rule each other out? Perhaps through this double negative Kant is cautiously suggesting that space does exist in itself, as does time, but only in as much that he cannot say that it does not, rather than that it actually does exist. And if an object were to be encountered in space, does that then become the means by which space is indicated; and is this only because of the very fact of its intrusion? Would that break then be the insertion of time, since that object has broken the previously empty space and created a marker or interruption? In the 'Transcendental Aesthetic' Kant's discussion of time begins with the following statements:

- 1) Time is not an empirical concept that is somehow drawn from an experience. [...] Only under its presupposition can one represent that several things exist at one and the same time (simultaneously) or at different times (successively).
- 2) Time is a necessary representation that grounds all intuitions. [...] Time is therefore given *a priori*. In it alone is all actuality of appearances possible. The latter could all disappear, but time itself, as the universal condition of their possibility, cannot be removed.¹⁰⁷

Therefore, Kant suggests that since time is not empirical, within the supposition of time actuality is always and at the same time *possible*, and that this possibility is a perpetual and inherent imminence. Returning to Kant's previous comment at the outset of the 'Transcendental Aesthetic', where he said that '[t]he undetermined object of an empirical intuition is called appearance'¹⁰⁸ even if appearances are taken away, time cannot be taken away, as it is continuous; and, because it is continuous, time allows for the possibility of appearance. Later on, Kant states:

In space considered in itself there is nothing moveable; hence the moveable must be something that is found **in space only through experience**, thus an empirical datum. In the same way the transcendental aesthetic cannot count the concept of alteration among its *a priori* data; for time itself does not alter but only something that is within time.¹⁰⁹

¹⁰⁷ Ibid. p. 162.

¹⁰⁸ Ibid. p. 178.

¹⁰⁹ Ibid. p. 167.

Here, Kant says that space in and of itself is not moveable, but in space – through the mechanism of experience, which could be regarded as being time or within time – space becomes moveable. In this way it is possible to return to a consideration of Kleist’s metaphor of the arch that is held in place because all of its stones are trying to collapse ‘*auf einmal*’ (*at the same time*) and suggest that it could be seen to demonstrate an idea where appearance can contain both space and time. In short, the arch may collapse given time. Kant also seems to be suggesting that time does not or cannot care about anything else, that time will carry on with or without space or the advent of other things.

While the arch, as described by Kleist, marks out space, his formation is also a construction in and of time. When he says of the arch that ‘*all the stones tend to collapse at the same time*’, the compelling image is not that the arch remains standing but that the stones are locked together into a formation of collapse. This inherent quality is the idea of the stones; this at-the-same-timeness or ‘*auf einmal*’ is a quality of time and in time. The idea of the stones collapsing ‘*auf einmal*’ suggests that this does not just occur simultaneously, but that in this collapse time is non-linear. Therefore in identifying this sense of the stones of the arch collapsing ‘*auf einmal*’, or having the quality of at-the-same-timeness, Kleist has inadvertently uncovered something beyond the empirical because time offers another quality, the potential for another form of knowledge – that of the *a priori* ground, or what can be derived from understanding and exploration of time as a separate intellectual inquiry. Clearly, at that moment Kleist was not able to recognize, embrace or work with such a radical departure in his own thinking, even though this quality of time that holds in it the potential of collapse is an ‘*auf einmal*’ of the stones of the arch and of the collapse of his own thinking.

But then space is surely the means by which time is differentiated. Is space conditional? In the previously articulated conclusions to the concepts on space, Kant says that ‘[s]pace is nothing other than merely the form of all appearances of outer sense, i.e., the subjective condition of sensibility, under which alone outer intuition is possible for us.’¹¹⁰ The notion here is that there may be something that is, at the very least, *possible*, that there may be appearance, or geometry. Further, in the revised version of the ‘Transcendental Aesthetic’, Kant asserts that:

Space is represented as an infinite **given** magnitude. Now one must, to be sure, think of every concept as a representation that is contained in an infinite set of different possible representations. [...] Therefore the original representation of space is an *a priori intuition*, not a **concept**.¹¹¹

¹¹⁰ Ibid. p. 159.

¹¹¹ Ibid. p. 157.

For Kant representation is not or does not become, of necessity, form, or geometry, 'For one cannot derive synthetic *a priori* propositions from any such representation, as one can from intuition in space.'¹¹² At the same time, Kant strongly cautions against any illustration of the concept as unreliable distraction. He suggests that 'ideality' does not become or is not the same as 'intuition in space', even though it is connected to the:

[...] representation of space in belonging to the subjective constitution of the kind of sense, e.g., of sight, of hearing, and feeling through the sensations of colours, sounds and warmth, which, however, since they are merely sensations and not intuitions, do not in themselves allow any object to be cognized, least of all *a priori*. The aim of this remark is only to prevent one from thinking of illustrating the asserted ideality of space with completely inadequate examples, since things like colours, taste etc., are correctly considered not as qualities of but mere alterations of our subject, which can even be different in different people.'¹¹³

This may seem to pre-empt the possibility of putting forward the suggestion that a metaphor such as Kleist's arch may be interpreted in the light of Kant's theories of space and time. While this may be the case, it is more to prevent the over-reliance on the notion that experience can deliver any certain understanding of space and time, that we cannot be sure that one person sees the same thing as another. This suggestion by Kant can be partly understood by returning to Kleist's previously mentioned metaphor of the green glasses described to demonstrate how one person sees differently from another. Kant cautions against universalizing commonality and begins to construct the individual subject, '[f]or we cannot judge at all whether the intuitions of other thinking beings are bound to the same conditions that limit our intuition and that are universally valid for us.'¹¹⁴ In delineating the clarification of how 'appearances in space' are to be judged, Kant argues:

The transcendental concept of appearances in space, on the contrary, is a critical reminder that absolutely nothing that is intuited in space is a thing in itself, and that space is not a form that is proper to anything in itself, but rather that objects in themselves are not known to us at all, and that what we call outer objects are nothing other than mere representations of our sensibility, whose form is space, but whose true correlate, i.e., the thing in itself, is not and cannot be cognized through them, but is also never asked after in experience.¹¹⁵

¹¹² Ibid. p. 178.

¹¹³ Ibid.

¹¹⁴ Ibid. p. 177.

¹¹⁵ Ibid.

Thus the assertion here is that anything called or seen as an object is a representation of sensibility, where form has become space; however, the true meaning of the object or the ‘thing in itself’ (*das Ding an sich*) may be apprehended through an understanding of space, but that experience in itself cannot provide any particular knowledge of space.

In the light of the possibilities of space and time it is useful to consider how Kleist’s metaphor of the arch might be interpreted. In the arch, geometry is suggested. Returning to Kant’s earlier remarks concerning the ‘transcendental aesthetic’, Kleist’s metaphor of the arch would seem to be indicative of an ‘appearance’; however, this is qualified, since in these terms it could be analysed as an ‘empirical intuition’, but this is tempered by the fact that it is not ‘undetermined’. The geometry suggested by the arch is one of an object and a space, as well as an object *in* space, since an arch creates a space at its centre. The space created can be used to move from one place to another, and consequently its use suggests a temporal quality, but also a demarcation between one place and another. This can be further demonstrated by considering Giorgio Agamben’s linguistic and axiomatic discussion of ‘Outside’ where he suggests:

Whatever is the figure of pure singularity [...] Through this relation, as Kant said, singularity borders all possibility and thus receives its *omnimoda determinatio* not from its participation in a determinate concept of some actual property [...] but *only by means of this bordering*. It belongs to a whole, but without this belonging’s being able to be represented by a real condition: Belonging, being-*such*, is here only the relation to an empty and indeterminate totality.

In Kantian terms this means that what is in question in this bordering is not a limit (*Schranke*) that knows no exteriority, but a threshold (*Grenze*), that is, a point of contact with an external space that must remain empty.¹¹⁶

Agamben’s notion of the ‘threshold’ has a number of resonances with the figure of the arch since it materially and geometrically creates a threshold, and at the same time it is a figure of ‘singularity’ or, to return to the ‘Transcendental Aesthetic’, an ‘appearance’. This is both a ‘whole’ in itself and ‘belongs to a whole’, since structurally an arch is primarily a part of something – that is, the architecture and engineering of a building,¹¹⁷ rather than only ever being the

¹¹⁶ Giorgio Agamben, *The Coming Community*, trans. Michael Hardt (Minneapolis: University of Minnesota Press, 2003), p. 67. Agamben’s emphasis.

¹¹⁷ This excludes the triumphal arches originating in Rome, such as those for Titus, Constantine and so on. Whereas for Wheeler, the architectural arch became the ‘symbol of Empire’, in Mortimer Wheeler, *Roman Art and Architecture* (London: Thames and Hudson, 1973), p. 153. Wheeler’s use of example of the arch to assert this point is testament to the centrality of the arch

thing itself, and that:

*Whatever, in this sense, is the event of an outside. What is thought in the architranscendental quodlibet is, therefore, what is most difficult to think: the absolutely non-thing experience of a pure exteriority.*¹¹⁸

Agamben further states:

The threshold is not, in this sense, another thing with respect to the limit; it is so to speak, the experience of the limit itself, the experience of the being – *within an outside*.¹¹⁹

This is a compelling and useful distinction and can be applied to the space created by the arch, since it remains within the boundaries of its own construction. The concept of the threshold is both the delineation of the inside and outside, where both exist simultaneously.

The nature of such demarcations is further raised in the construction of Kleist's arch as a metaphor and as a diagrammatic drawing marking out the geometry of space (Fig. 1.9). By drawing the lines of the arch Kleist has drawn attention to the way space is made: not just of the arch itself as architecture, but the void has *made* space – the space is *made* through the drawing of its boundary. Since, if there is an arch, there is a space. The construction of the arch questions the concepts of boundary and limit: is the arch the edge or the end of the architectural construction, or is it the beginning of space? The arch is interstitial in architecture, not *an* or *the* end point. In his investigation of place, Casey explores these concerns:

This discussion leads us to distinguish between *boundary* and *limit* [...] For limit, like shape, belongs primarily to what is limited and only secondarily to what does the limiting (e.g., a container) [...]¹²⁰

Malpass and Thiel further suggest that, while Casey derives this theory from Aristotle, the difference between Kant and Aristotle is that:

[...] Aristotle uses the notion of boundary, together with that of containment, to characterise place, Kant uses the idea of place together with containment, to characterize the idea of boundary.¹²¹

as the visual icon of Roman architecture, engineering and political power.

¹¹⁸ Agamben, *The Coming Community*, p. 67.

¹¹⁹ Ibid. p. 68.

¹²⁰ Casey, *The Fate of Place*, p. 63.

¹²¹ Jeff Malpas and Karsten Thiel, 'Kant's Geography of Reason' in *Reading Kant's Geography*, p. 198.

While for Malpas and Thiel this leads to the assertion that boundary is specifically geographical for Kant and therefore an aspect of the topographic, for Casey boundary is demarcated and delineated place, as defined by Aristotle. But, for Casey, this is not without problems:

To be a boundary, by contrast, is to be exterior to something or, more exactly, to be *around* it, *enclosing* it, acting as its surrounder. As such, a boundary belongs to the container rather than to the contained – and thus properly to place as the inner surface of the containing vehicle [...]¹²²

Yet, while Casey's propositions can be applied to identify the problem of the spatial properties of the arch, neither of these quite defines what is at work in the geometry of the arch. Malpas and Thiel¹²³ further take up the question of what the boundary may imply in their discussion of Kant's analysis of the boundary in the *Prolegomena*. For Kant the boundary or boundedness is spatial and located:

Boundaries (in extended things) always presuppose a space that is found outside a certain fixed location, and that encloses that location; limits require nothing of the kind, but are mere negations that affect a magnitude insofar as it does not possess absolute completeness.¹²⁴

Kant suggests that space is interrupted or intersected by the boundary, but that limit, because it is located is ultimately partial. Whereas Malpas and Thiel argue '[...] limits are merely negative so that the assertion of a limit need involve no commitment to anything that stands outside or goes beyond that which is limited'¹²⁵ and therefore suggest that the limit has a singular or unified purpose, whereas the boundary is geographic because it is connected to the horizon and to place. However, if as Malpas and Thiel say, that '[...] a limit involves only a negation [...]'¹²⁶ would it mean that the stones that comprise the arch, since they construct the limit, become a negation? The problem of the limit here for Malpas and Thiel is that, in order to argue for it in such a way, the conception of the limit as a negation of the extent of space is necessarily on a horizontal plane and not a vertical geometry or architectural construction.

¹²² Casey, *The Fate of Place*, p. 63.

¹²³ Malpas and Thiel, 'Kant's Geography of Reason', in *Reading Kant's Geography*, pp. 206–10.

¹²⁴ Immanuel Kant, *Prolegomena to Any Future Metaphysics: With Selections from the Critique of Pure Reason*, trans. and ed. by Gary Hatfield (Cambridge: Cambridge University Press, 1999), p. 106. See no. 57 'Conclusion On determining the boundary of pure reason', pp. 111. [4:351 – 4:357 especially 4:352 and 4:354]

¹²⁵ Malpas and Thiel, 'Kant's Geography of Reason', in *Reading Kant's Geography*, p. 206.

¹²⁶ Ibid. p. 207.

Returning to the example of the arch, the added complexity here is that the arch is not specifically a limit or a container. It makes space but holds nothing other than itself in place; there is a boundary. But, contrary to Casey, even though the boundary is a ‘surrounder’ and the stones of the inner surface of the arch become its limit, at the same time, the arch is dependent on place – it is, to return to Agamben, a threshold. In the space of the arch where does one find oneself? What happens when Kleist, or anyone, walks through the arch? Traversing the threshold created by the arch can only exist in time; and therefore time displaces the boundary or boundedness.

In the ‘Doctrine of Method’, towards the end of the *Critique of Pure Reason*, Kant directs the discussion to questions of the use, context and limits of critical and practical reason, and moves towards a summation that:

All interest of my reason (the speculative as well as the practical) is united in the following three questions

What can I know?

What should I do?

What may I hope?

The first question is merely speculative. [...]

The second question is merely practical. As such to be sure, it can belong to pure reason, but in that case it is not transcendental, but moral, and thus it cannot be itself a subject for our critique.

The third question, namely, if “I do what I should, what may I then hope?” is simultaneously practical and theoretical [...] For all **hope** concerns happiness, and with respect to the practical and moral law it is the very same as what knowledge and the natural law is with regard to theoretical cognition of things.¹²⁷

The integration of concepts in the ‘Doctrine of Method’ allows Kant to reflect on the potential that reason itself is a practice, which both proposes and answers such questions as these. But further, this articulates the knowledge of knowledge, or what one knows (or does not know) is self-consciousness. Later, in his *Lectures on Logic*, prepared for publication by Jäsche in 1800, Kant indicates an outline of what philosophy is, how reason works, what the work of reason is, what reason enacts, and what reason proposes:

[...] the system of philosophical cognitions or of cognitions of reason from concepts. That is the *scholastic concept* [Schulbegriff] of this science. According to the *worldly concept* [Weltbegriffe] it is the science of final ends of human reason.¹²⁸

¹²⁷ Kant, *Critique of Pure Reason*, p. 677.

¹²⁸ Immanuel Kant, *Lectures on Logic*, trans. and ed. J. Michael Young

In this discussion Kant turns again to the three questions above and considers what they ask of philosophy, adding a further question, ‘4. *What is man?*’¹²⁹ He clarifies the purposes and methodology for each of the questions: ‘*Metaphysics* answers the first question, *morals* the second, *religion* the third, and *anthropology* the fourth.’¹³⁰ These questions, while indicating the intention, purpose and methodology of philosophy for Kant, lead his reader towards this series of ‘final ends’ and at the same time mark out the space of the individual subject. As such, through these ‘final ends’ Kleist, as the most traumatised reader of Kant, was inculcated into the *Critique*. The pared down clarity of Kant’s first three questions above has not only been embraced, but could have been written by Kleist himself, since these questions became the leitmotifs, impetuses and explorations at the heart of his writing. However, where Kant searched for the limits of reason, Kleist found its collapse.

(Cambridge: Cambridge University Press, 1992) p. 537.

¹²⁹ Ibid. p. 538. These questions are referred to in Elden’s and Mendieta’s Introduction to *Reading Kant’s Geography*, p. 8 and in p. 14 notes. However, they translate question 4 as: “What is the human being?” and consider the anthropological also as geography.

¹³⁰ Kant, *Lectures on Logic*, p. 538.

Chapter Two

Collapse: as architecture, as contested territory, as abyss

This chapter, divided into three parts, considers uncertainty a manifestation of collapse. The first two parts analyse Kleist's experimental prose writing – the short story *Das Erdbeben in Chili* and the novella *Michael Kohlhaas* – embody collapse in terms of material occurrence and an expression of uncertainty. The third part explores spatial collapse in Kleist's concept of the abyss.

Part I *Collapse as architecture*

I. Earthquake and the architecture of collapse

In *Das Erdbeben in Chili* (*The Earthquake in Chile*), written in 1807, collapse is demonstrated as the collapse of a city and the agencies of society. The events of the story are shown to occur 'at the same time'. Through the event of an earthquake, Kleist represented part of the narrative as occurring simultaneously. An excavation of vertical collapse, destruction and the demarcation of architectural space and place in Kleist's story *Das Erdbeben in Chili* are the principal means by which Kant's pre-critical theory is considered and analysed. The Lisbon earthquake had a considerable effect on the Catholic Church in Lisbon, and the battleground between the church and a laity influenced by Enlightenment thought concerned the contestation of the notion that the earthquake was divine punishment for moral laxity. In the story, Kleist further demonstrates how the role of the church, as the divine arbiter of God's will, could be cruelly brought to bear on the survivors of a catastrophe. In the immediate aftermath of the earthquake, the church takes advantage of the collapse of social order, standing by as mob rule wreaks arbitrary punishment and revenge for the disaster.

Kleist's extrapolation of the metaphor of the (not yet) collapsing arch, to his own state of being, to a subjective collapse that he could not contemplate befalling him at that moment because he felt so certain about his future with Wilhelmine, develops:

[...] from this thought I derived an indescribably heartening consolation,
[...] that I too would not collapse, even if all my support were removed!¹

¹ Kleist, *An Abyss Deep Enough*, p. 76.

Both the physical and internal concepts of collapse are powerfully linked by the way they presage their own occurrence, as though, by identifying the metaphor, such a collapse was bound to happen. Kleist's image of the arch that stays upright even though '*all the stones tend to collapse at the same time*'² suggests that in order for the architecture of the arch to fail, a disaster of some kind has to occur as a natural phenomenon or as a wilful and destructive act, but that when such a collapse happens it is decisive and complete.

Kleist's observation about the arch being held up because the stones want to collapse engenders the unsaid of architecture: that an arch as a technical, designed and engineered construction is collapse held in temporal abeyance. His remark is provocative and transgressive. Kleist's seemingly empirical reflection is held together as the inertia of its philosophical, metaphorical and material destruction. Kleist's concept of the imminently collapsing arch appears at a significant historical moment at the turn of the eighteenth century, when Europe was riven by war and chaos. The arch is an object in time, yet it is possible to suggest that the unity of the system may ultimately fail, that it can collapse. Shortly after making this observation, Kleist read Kant's critical writing and his avowedly unshakeable faith in his understanding of the world collapsed. Some *Germanistik* literary critics have given considerable, and undue, credence to the comparison between this personal incident and the story *Das Erdbeben in Chili*, creating confusion between the fictional earthquake and Kleist's state of being. Reading Kant's *Critique* was clearly a thought-changing event, which caused great internal anguish for Kleist. Through considering Kant's pre-critical earthquake essays³ and the concept of uncertainty drawn from critical philosophy, together with Kleist's earthquake story, an interpretation of Kleist's thinking can be proposed.

The construction of architectural and temporal space is represented as destruction in Kleist's story *Das Erdbeben in Chili*. The opening lines locate it in the real event of the 1647 earthquake in Santiago, Chile. However, there is compelling evidence to suggest that the story drew on the historical event of the catastrophic earthquake that destroyed Lisbon sometime after 9 o'clock in the

² Ibid.

³ These were published as: *Von den Ursachen der Erderschütten bei Gelegenheit de Ungücks, welches die westliche Länder von Europa gegen das Ende des vorigen Jahres betroffen hat* [AKI:417–27] (*Concerning the Causes of the Terrestrial Convulsions on the Occasion of the Disaster which afflicted the Western Countries of Europe towards the End of Last Year*) (January 1756); *Geschichte und Naturbeschreibung der Merwürdigsten Vorfälle des Erdbebens...* [AKI:429–61] (*History and Natural Description of the Most Remarkable Occurrences associated with the Earthquake*) (February 1756); and *Fortgesetzte Betrachtung der seit einiger Zeit wahrgenommenen Erdesschütterungen* [AK I:463–72] (*Further Observation on the Terrestrial Convulsions which have been for Some Time Observed*) (April 1756). See: Kant, *Natural Science*, pp. 327–73.

morning on All Saints' Day, 1 November 1755.⁴ Recent seismologists calculate the scale of the earthquake as being close to magnitude nine⁵ with the epicentre located about 100 kilometres to the south-west of Lisbon, in the Atlantic on the Azores-Gibraltar transform fault.⁶ The earthquake itself, as well as the fires and tsunami that followed, left much of Lisbon and its harbour in ruins; other towns and cities on Portugal's Atlantic coast, as well as in Spain and Morocco, were also badly affected.⁷ By contrast, the 1647 Santiago earthquake in Chile was not affected by tsunami and fire; this reference was probably used by Kleist because of its convenience as a remote, though earthquake prone, location. According to Kant, the Lisbon earthquake and subsequent tsunami were felt and observed throughout Europe, where the physical shocks and evidence of the earthquake were felt and recorded as far away as Scandinavia, England and Ireland. This may have contributed in part to the empathy for the disaster throughout Europe. In Lisbon there was considerable loss of life; an estimated ten to fifteen thousand perished from a population of about 275,000. The earthquake inevitably had serious consequences for Portugal's economy, which was prosperous, but badly regulated and mainly reliant on gold and diamonds from its colonies in Brazil.⁸

The scale of the Lisbon earthquake caused the certainties of the Enlightenment to fragment;⁹ it was, after all, the destruction of a rich European capital.¹⁰ The aftershocks seemed to augur a period of uncertainty and instability. This event has been described by Dyness as the first 'modern disaster.'¹¹ Dyness defines this notion of modernity in relation to the earthquake as taking two forms: firstly, as the disruption of Enlightenment thought; secondly, and most importantly, as provoking a response by the state to the emergency, where

⁴ To a lesser extent there is a connection to the earthquake nine years earlier in Lima and Callao, Peru, 1746.

⁵ Magnitude: 8.6. Earthquake: Lisbon, Portugal. 1 November, 1755.

⁶ Transform fault: when two plates move in opposite directions.

⁷ See Jean-Paul Poirier, 'The 1755 Lisbon disaster, the earthquake that shook Europe' *European Review*, Volume 14, Issue 2, (May 2006), 169–80. (p. 172). <<http://journals.cambridge.org/ERW>> [accessed: 3 December 2013]. Poirier notes that in Lisbon the Tagus River rose about 5 metres and penetrated 250 metres inland, but further south in Cadiz the tsunami of 15 metres high hit the city causing considerable damage. The tsunami travelled across the Atlantic to the Caribbean.

⁸ The Portuguese economy was tied to England through the 1703 Methuen Treaty(s). England negotiated lower duties on port and wine than with France; in exchange Portugal took British wool and grain. Though initially this relationship was advantageous, Portugal became increasingly financially dependent on England. See David Birmingham, *A Concise History of Portugal* (Cambridge: Cambridge University Press, 1993), pp. 62–64.

⁹ See T.D. Kendrick, *The Lisbon Earthquake* (London: Methuen, 1956), and also T. E. Braun, and J. Radner, eds. *The Lisbon Earthquake of 1755: Representations and Reactions*.

¹⁰ In 1755 Lisbon was the fourth largest city in Europe.

¹¹ Russell R. Dyness, 'The Lisbon Earthquake of 1755: the first modern disaster', in *The Lisbon Earthquake of 1755: Representations and Reactions*, pp. 34–49.

the state took charge, organized disaster relief, and accepted responsibility for reconstruction. The scale of the loss at the time of the earthquake is measureable in terms of the missing and destroyed material of Portugal's culture, the kind of collections that later became national treasures: architecture, libraries, art galleries.¹² The earthquake in Lisbon in 1755 was a historical marker, a moment that appeared as the harbinger of significant change in thought and culture and, as a consequence, it seemed to usher in a series of collapses across Western Europe.¹³ The Europe of the present day emerged from and is recognizable in these events.

It is unclear why Kleist chose to explore this theme fifty years after the Lisbon earthquake. There were other literary manifestations of the 1755 disaster in Lisbon. The best-known representation of the earthquake is Voltaire's *Candide* of 1759. Significantly for Kleist, the earthquake also featured in the work of *Sturm und Drang* writers, Jakob Lenz and Johann Uz.¹⁴ However, most importantly for Kleist, Kant wrote three separate essays on the Lisbon earthquake, applying practical scrutiny to observations by Lisbon survivors and hypothesising as to the cause of the calamity. They were published as pamphlets in 1756,¹⁵ the earliest coming out in January 1756. Kant subsequently refers to earthquakes in his 1763 essay 'The only possible argument in support of a demonstration of the existence of God'. The essay tries to map a demarcation between religion and natural philosophy.¹⁶ Kendrick's historical and theological account of the earthquake, *The Lisbon Earthquake*,¹⁷ discusses the demise of 'optimistic' thinking suggested by Leibniz. The position Kendrick primarily advances is that *Candide* is a satire on the end of Leibniz's 'theodicée' characterised by Voltaire as 'tout est bien'¹⁸ or the idea that everything happens for the best in the best of all possible worlds. There is a tendency by scholars to over-determine the importance of Voltaire's thinking in relation to Leibniz; however, a key feature of the novel was composed as a response to Rousseau's letter to Voltaire of 18 August 1756.

¹² The losses included, for example: collections of Italian renaissance painting, the recently finished opera house, and the Camero Convent library lost 70,000 books.

¹³ These revolutions were: the industrial revolution in Britain, which was the most long lasting, then American independence, and lastly the French revolution, followed by the Napoleonic war as a pan-European war, not ending until 1815 four years after Kleist's suicide in 1811.

¹⁴ See Poirier, 'The 1755 Lisbon disaster, the earthquake that shook Europe', *European Review*, p. 178, who states that Johann-Peter Uz wrote *Das Erdbeben (The Earthquake)* in 1769 and Jakob Michael Lenz wrote *Die Landplagen (The Menace)* in 1769 drawing on the Lisbon earthquake.

¹⁵ See note 6.

¹⁶ Kant, 'The Only Possible Argument in Support of a Demonstration of the Existence of God', in *Theoretical Philosophy 1755–1770*, pp.107–195, especially, pp.107–50.

¹⁷ Kendrick, *The Lisbon Earthquake*, published in 1956 to coincide with the Lisbon bicentenary, it focused on the end of 'optimism' and the earthquake's effect on theological concerns in the latter part of the eighteenth century.

¹⁸ *Ibid.* p. 119–41.

Rousseau's controversial letter mounted a critique of the pessimism of Voltaire's poem, *Poème sur la désastre de Lisbonne*, published in April 1756. Early on, he states:

All my objections are, then, directed at your poem about the Lisbon disaster, because I expected from it effects worthier of the humanity that seems to have inspired it. You charge Pope and Leibniz with insulting our evils by maintaining that all is well [*or*: good], and you so greatly magnify the picture of our miseries that you heighten our sense of them; instead of the solace I had hoped for, you only distress me.¹⁹

Kendrick erroneously adds that Kant was a follower of Leibniz's 'optimistic' thinking, though he qualifies this by suggesting that this was because Kant was only at an early stage in his career.²⁰ Yet, the evidence of Kant's writing, especially before the Lisbon earthquake, does not bear out Kendrick's claim. In his early work, Kant documented the writings of Leibniz and other prominent philosophers, but this did not necessarily constitute an attachment to them.²¹

The progression of Kant's work after the essay on Leibniz exhibited an inclination towards natural philosophy. Between 1754 and 1755 Kant wrote four essays on natural philosophy. The best known of these, from 1754, was 'The question, whether the Earth is ageing, considered from a physical point of view'.²² Larsen notes that Kant's '[...] grappling with the limits of what can be grasped by the human mind on the grounds of theodicy makes him sensitive to what's coming'.²³ At the time of the earthquake in Lisbon, Kant was concerned to amass the available observations and evaluate the evidence, concentrating

¹⁹ 'Letter from J. J. Rousseau to M. de Voltaire 18 August 1756' in Jean Jacques Rousseau, *The 'Discourses': and other early political writings*, trans. and ed. by Victor Gourevitch (Cambridge: Cambridge University Press, 2004), p. 232–33. There is a secondary literature on Kleist and Rousseau, some of which analyses *Das Erdbeben in Chili*, for example, Steven Howe, *Heinrich von Kleist and Jean-Jacques Rousseau: Violence, Identity, Nation* (New York: Camden House, 2012). Rousseau will not be analysed in this thesis.

²⁰ Kendrick, *The Lisbon Earthquake*, p. 131.

²¹ See Kant, 'Thoughts on the true estimation of living forces and assessment of the demonstrations that Leibniz and other scholars of mechanics have made use of in this controversial subject, together with some prefatory considerations pertaining to the force of bodies in general 1746–1749', in *Natural Science*, pp. 1–155. The title alone gives a concise précis of Leibniz's work.

²² See Kant, *Natural Science*, pp. 165–81, the other essays included in this text are: 'Examination of the question whether the rotation of the Earth on its axis by which it brings about the alteration of day and night has undergone any change since its origin and how one can be certain of this which [question] was set by the Royal Academy of Sciences in Berlin as the prize for the current year 1754, Universal natural history and theory of the heavens or essay on the constitution of and the mechanical origin of the whole universe according to Newtonian principles' 1755, and 'Succinct exposition of some meditations on fire' 1755.

²³ Svend Erik Larsen, 'The Lisbon earthquake and the scientific turn in Kant's philosophy', *European Review*, Volume 14 Issue 03, (July 2006), 359–67, p. 361. <<http://journals.cambridge.org/ERW>> [accessed 3 December 2013]

exclusively on the natural event. Throughout his studies of earthquake, Kant adhered to material and spatial understandings of the earth through the field of natural philosophy, which subsequently provided the basis for his lectures on geography, on which he worked and presented for the next forty years. Even though the interpretation of the event of the Lisbon catastrophe was a repositioning of Kant's thinking, he did not embark upon the first of the *Critiques* until more than twenty years later. Furthermore, Kant did not specifically define the Lisbon earthquake as an aesthetic. In contradistinction to this, Regier's contention is that the Lisbon earthquake is a 'foundational' ruin²⁴ and therefore sublime; he is consequently drawn into the temptation to define Kant's work on the Lisbon earthquake as an aesthetic. In order to suggest this, Regier bypasses the empirical methodology of Kant's natural philosophy and subsequent geography in pursuit of a contracted sense of the spatial as 'distance', because 'the sublime is the category that theorizes the creation of this type of distance'²⁵ and, as such, Regier is able to posit that, if Lisbon was sublime, it was also residually 'ruins',²⁶ or *a* ruin, or *the* ruin. Regier continues, suggesting that 'the ruins become foundational and serve as a stabilizing grounding and in creating a discourse on the sublime.'²⁷ However, this is a limited and overly literal interpretation of Kant's (much) later work on the aesthetic as being directly contingent on his previous writing about the Lisbon earthquake Regier further asserts this by stating that in:

[...] the *Critique of Judgement* he writes "in presenting the sublime in nature the mind feels *agitated* [...], while in an aesthetic judgement about the beautiful in nature it is in *restful* [...] contemplation. This agitation (above all its inception) can be compared with vibration."²⁸

Regier concludes this argument by suggesting that:

[...] the heart of the "scientific reception" lies in the disruptive moment of a nearly mythologized secularization, the sublime relies on the moment of total breakdown – a breakdown that, as Kant's own vocabulary betrays, resembles an earthquake.²⁹

However, there is no evidence in the earthquake essays or in the later natural philosophy expounded through the lectures on geography that Kant saw the collapse of Lisbon as an indication or expression of the sublime, but rather, his method for the analysis of the phenomena was applied through the empirical

²⁴ Alexander Reiger, 'Foundational Ruins: The Lisbon Earthquake and the Sublime' in *Ruins of Modernity*, Hell and Schönle, eds., p. 357.

²⁵ Ibid. p. 364.

²⁶ Ibid.

²⁷ Ibid. p. 365.

²⁸ Ibid. p. 371.

²⁹ Ibid.

method as natural philosophy. The desire to establish a link between Kant's agitation of mind, of the progression and development of thought and the events of the earthquake in Lisbon are constructed specifically as internalised, but the consequent problem is that this tends to imply that historical events are affect rather than experience. In revisiting the events of the Lisbon earthquake for the story *Das Erdbeben in Chili*, Kleist follows Kant's empirical model by demonstrating awareness of historical details and personal accounts of the aftermath of the earthquake in Lisbon using them to effect in the story. In *Das Erdbeben in Chili* collapse occurs both as earthquake levels a capital city and as the disorder of social breakdown. As with most earthquakes, the devastation lies in the proximity between people and architecture; in *Das Erdbeben in Chili* Kleist gives literary form to the terrain of collapse in space and time.

2. Kant's pre-critical phase as method

Kant's three scientific essays written and published within the six months following the earthquake in Lisbon are a speculation on and theory about the causes of earthquakes and are based on the available research on seismic activity. The significance of the essays lies in Kant's consideration and exploration of the event entirely as 'natural science'. The essays predominately endeavour to bring together the available scientific knowledge of earthquakes and to hypothesise as to their causes and outcomes by considering the events only as natural philosophy. Porter notes that, 'From the 1750s onwards, traveller-naturalists all over Europe began to fix their attention on volcanoes and earthquakes,'³⁰ both in connection to and independent of the Lisbon earthquake, which were the sources that Kant pursued. Kant later acknowledges that his work in natural philosophy and geography is reliant on sources from elsewhere, rather than personal observation:

Thus we extend our knowledge through the testimony of others, as if we had lived through the world's entire past. [...] But we must note that every experience of another person is imparted to us either as a **narrative** or as a **description**. The former is a **history**, the latter is a **geography**.³¹

³⁰ Roy Porter, *The Making of Geology: Earth Science in Britain 1660–1815* (Cambridge: Cambridge University Press, 2008), p. 123.

³¹ Kant, 'Physical Geography', in *Natural Science*, p. 447. Kant's emphasis. Kant had a deep and abiding interest in other places and kept abreast of developments and explorations into new places throughout his academic career. In the chronology of Kant's writings, the work on geography immediately followed the three earthquake essays and came before the critical philosophy, and should be seen in the context of his perception of himself as natural philosopher, though little of this material was published in his lifetime, Friedrich Theodor Rink (1770–1811), Kant's friend and colleague edited and published an authorized edition of the 'Physical Geography' in 1802, following

In their paper, ‘Kant’s Theory of Earthquakes and Volcanic Action’, Reinhardt and Oldroyd noted Kant’s view that in the voids under the earth and the sea there was:

[...] a considerable amount of material – sulphur and iron – which could ‘ferment’ when acted upon by water, leading to subterranean conflagrations and upheaval of the Earth’s crust.³²

Based primarily on the observations of others, Kant proposed a chemical explanation of the cause of earthquakes. Kant suggested that the centre of the Lisbon earthquake was under the sea, which was one of the few points that later science proved correct. Reinhardt and Oldroyd further conclude that, while Kant’s writings on earthquakes and volcanism did not contribute much to the development of geological understanding, their abiding importance rests in:

Kant’s manner of thinking about nature in his early, pre-critical phase, evidencing his wish to formulate a “universal natural history”, capable of accounting for all natural phenomena. In fact, one might say that the occasion of the Lisbon earthquake provided him with a welcome opportunity to show how his theories could be deployed for explanatory purposes when required.³³

From these comments by Reinhardt and Oldroyd it is possible to consider three significant points about Kant’s earthquake essays. The first is that, in this early work theorising natural phenomena, the manner in which Kant applied a methodology to evaluating the data observed and collected by others, was to determine that he must limit himself solely to natural phenomena. Kant’s

the 1801 publication of ‘Physical Geography’ by Johann Jakob Wilhelm and Gottfried Vollmer under Kant’s name without permission. Kant was too old and ill for the task of publishing. ‘Physical Geography’ is based on the lectures on geography Kant did forty-nine times from 1756 to 1796; the work is dependent on what was known at the time and accounts of other explorers, travellers, and natural philosophers. Kant set out the terms and defined the field of inquiry through his lectures on geography. The geography lectures were a sizeable part of his output; the only courses he taught more were logic, fifty-six times and metaphysics, fifty-three times. This opens up questions as to how Kant saw himself, that by maintaining and continuing his work in natural philosophy throughout his life suggests that Kant did not consider himself to be purely a critical philosopher and that his development in critical philosophy was not a linear aspiration, but one that sat alongside his work in natural philosophy and geography. In the next generation, Novalis also moved between the scientific and philosophical.

³² O. Reinhardt and D.R. Oldroyd, ‘Kant’s Theory of Earthquakes and Volcanic Action’ *Annals of Science* 40, (1983), 247–72. (p. 249). <doi: 10.1080/00033798300200221> [accessed: 27 July 2009]. They further note that this hypothesis was well-known and advanced some time previously by the French scientist Nicholas Lémery in 1706.

³³ Ibid. p. 252.

early work is referred to as ‘pre-critical’ by Reinhardt and Oldroyd, and has all the hallmarks of an empirical method. This shift from observation, or empirical method, to critique was neither straightforward nor unproblematic for Kant, and this movement anticipates Kleist’s own trajectory after reading Kant. This assertion by Kant that earthquakes are phenomena of nature leads to the second point: that, by adopting this position, Kant is able to assert that earthquakes are not ascribed to divine intervention. The third point raised above is again a methodological one: Kant identifies that history is best left to the historians.

The earthquake essays offer insights into how Kant describes himself, how he perceives his role and method as a natural philosopher. In the opening lines of the first essay he says:

Great events affecting the fate of all mankind properly arouse a commendable curiosity, stimulated by all that is extraordinary and [concerned with] questions as to its origins. In such case[s], the natural philosopher’s obligation to the public is to give an account of the insights yielded by observation and investigation.³⁴

Kant’s essays are of historical importance as a contemporary account of collecting, archiving and evaluating the available knowledge quickly emerging from the experiences and observations of survivors near the epicentre of the Lisbon earthquake. Curiously, proliferation of these rapidly published pamphlets documenting personal experiences of the disaster in Lisbon did not subsequently translate into a long-lasting collective memory of the catastrophe.³⁵ Kant clearly indicates thoughtful interest in the personal accounts of those who survived the earthquake and sympathy concerning the human tragedy, and that he values their testimonies, but as a natural philosopher he must not venture into that territory. This offers interesting insights into Kant as a reader. He concludes the first part of the second essay by suggesting that a history of the personal accounts of those who experienced the earthquake in Lisbon should be collected, and although it is reasonable to assume that he has read many of the available documents and pamphlets by those who witnessed the dreadful events, he nevertheless concludes that he would not be the best person to write such a history:

³⁴ Kant, *Natural Science*, p. 330.

³⁵ In the (re)discovery of Herculaneum in 1738 and Pompeii in 1748 the historical ‘authentic ruin’ proved more captivating than comprehension and retention of the contemporary disaster of the 1755 Lisbon earthquake. This perhaps subsumed a long-lived memory of the catastrophe in Lisbon. See Andreas Huyssen ‘Authentic Ruins: products of modernity’ in *Ruins of Modernity*, Hell and Schönle, eds., pp. 17–28.

Everything horrible, which the imagination can represent to itself, must be collected, in order in some measure to figure to one's self the consternation, in which men must be when the earth under their feet moves and is torn with convulsions, when everything around them falls to the ground, [...] But I leave this history to more able hands, and shall here describe the work of nature only, the remarkable natural circumstances, which accompanied the dreadful event, and their causes.³⁶

Kant said in his first earthquake essay that the natural philosopher's obligation to the public is to give an account of the insights yielded by observation and investigation. In doing so, Kant demonstrates that he is a scholar of considerable principle who will not evade his duty; but that he must necessarily confine himself to his own field in order to best help the public understanding of the probable causes of the earthquake. Kleist ventured into this field of personal testimony produced in the aftermath of the Lisbon disaster in *Das Erdbeben in Chili*. Kleist uses the story to speculate on how the material collapse of the architecture that makes a city inevitably becomes the collapse of the institutions of law, church and state, and how this wreaks havoc on the cohesion of the society as a whole.

Returning to the second point suggested by Reinhardt and Oldroyd's comments concerning the importance of Kant's pre-critical writings, the secular nature of Kant's earthquake essays is of real historical importance because, by limiting himself to science, or to an empirical method, Kant both scrupulously avoids ascribing any moral judgement concerning the cause of the cataclysm and at the same time avoids doctrinal inference from any conclusions he may draw. This separation of natural philosophy from organised religious thought has great significance for later writers, especially for the exponential development of scientific thought and writing in the nineteenth century. Larsen notes, with reference to the 'scientific or empirical turn in Kant', that '[i]n the three texts, all reference to divine teleology have vanished; instead Kant is trying his best to stay with material, causal explanations.'³⁷ Consequently, Kant's method of outlining a secular basis for the earthquake essays may be of more importance to the imperative of the subsequent independent development of science than whether he actually arrived at the correct theory for the causes of earthquakes. Regrettably, Kant's three essays on earthquakes are often dismissed because his theories were not proved correct by later science. In the two popular and

³⁶ Immanuel Kant, *Essays and Treatises on moral, political, religious and various philosophical subjects*, from the German by the translator of 'The Principles of Critical Philosophy', In Two Volumes Vol. II (London: published William Richardson 1799), p. 100.

³⁷ Larsen, 'The Lisbon earthquake and the scientific turn in Kant's philosophy', *European Review*, p. 362.

oddly anglophile narratives of the Lisbon earthquake, Paice and Shrady³⁸ are concerned to establish the importance of a hypothesis suggested in 1760 by the Reverend John Michell³⁹ concerning the notion that an earthquake produced waves in the earth, and who also hinted at the idea of faulting. Although this was ultimately proved a viable hypothesis by later scientific theory, at that stage the idea was so tenuous as to be not immediately applicable or taken up by other natural philosophers. Michell, like Kant, had worked from the publications and pamphlets of first-hand observers from Lisbon. However, Kant's scientific turn did not just lead up to and end with the 1755 earthquake, as Larsen implies; rather, his search for a greater understanding of the earth occasioned by the Lisbon catastrophe went well beyond this period into Kant's study of geography and the geographic, which was conducted alongside the *Critiques*.⁴⁰

In Kant's three essays there is very little reference to moral punishment or possible supernatural causes of earthquakes, though they are mentioned as a frame to the essays. Kant says in the opening paragraph of the second earthquake essay, written in 1756, and the most substantial of the three, *Geschichte und Naturbeschreibung der Merwürdigsten Vorfälle des Erdbebens* [...], that:

Even the terrible instruments of the visitation of the human species, the shakings of countries, the raging of the ocean, that is violently agitated to its very bottom, the volcanoes or mountains that cast out flames, summon men to contemplation, and are not less implanted in nature (by God) as a just consequence of constant laws, than other usual causes of incommodity [unpleasant consequences], which are holden [sic] more natural, only because we are better acquainted with them.⁴¹

There is mention of God here, but it is only cursory, as an afterthought, whereas the primary emphasis is on nature. This is something that Kant would revisit in his essay from 1763, 'The Only Possible Argument in Support of a

³⁸ E. Paice, *Wrath of God: the great Lisbon Earthquake of 1755* (London: Quercus, 2008), pp. 219–20; and N. Shrady, *The Last Day: wrath, ruin and reason in the great Lisbon Earthquake of 1755* (New York: Viking Penguin, 2009), pp. 141–42.

³⁹ Reverend John Michell (1724–1793), English Natural Philosopher; member Royal Society whose research included geology, gravity, magnetism. His 1760 Royal Society lecture was entitled: *Conjectures concerning the Cause, and Observations upon the Phenomena of Earthquakes; particularly of that great Earthquake of the First of November 1755, which proved so fatal to the City of Lisbon and whose Effects were felt as far as Africa and more or less throughout almost all Europe*.

⁴⁰ See 'Physical Geography' in Kant, *Natural Science*, pp. 434–679. Kant lectured on geography forty nine times from 1756 to 1796.

⁴¹ Kant, *Essays and Treatises on moral, political, religious and various philosophical subjects*, 1799, p. 95. See also Kant, *Natural Science*, pp. 327–73.

Demonstration of the Existence of God'. For the moment, Kant is concerned with the material ground:

We know pretty completely the surface of the earth, when the ampliation* is concerned. But we have under our feet a world still, with which we at present are but little acquainted.⁴²

Nevertheless, while it seems generally agreed upon that the secular drive of Enlightenment thinking was temporarily halted in the responses to the Lisbon earthquake, this was not true for Kant – the earthquake appears to have motivated him to find a solution in natural philosophy, that is, a secular interpretation, and as such this becomes part of his identification and explication of and move towards critical thinking. Later in 1756, the same year as the earthquake essays, Kant first offered lectures on geography, and continued to do so for the subsequent forty years. Reading Kant's work from his pre-critical phase provides understandings of the development of Kant's method of thinking as it moved from observational to critical. The importance of Oldroyd and Reinhardt's identification and discussion of this pre-critical phase of writing as Kant's thinking suggests that the progress and application of hypotheses about natural phenomena were important for his development of autonomous reason.

3. Collapse and *Das Erdbeben in Chili*

The story *Das Erdbeben in Chili* was Kleist's first completed story, written in 1806 and published in 1807. It is a grim and violent tale of cruelty, arbitrary disaster and revenge set in the context of an earthquake. Throughout the story Kleist asks that, if the foundation of the ground beneath our feet is not certain, then what certainties remain? The story suggests that if this is the case, then nothing is certain. If *Das Erdbeben in Chili* is explored as an experimental work, as a site where Kleist gives form to Kant's philosophical considerations, the story can be interpreted for its complex philosophical and historical possibilities. It is reasonable to speculate that Kleist was familiar with Kant's three earthquake essays, and the location of Chile was probably based on reading them. For example, Kant says: '[...] Peru and Chile are more subject to frequent quakings than all the other countries in the world.'⁴³ For the purposes of the narrative, Chile was far away, and a Spanish Catholic colony created further potential material concerning the relationship of the church to the disaster. In *Das Erdbeben in Chili*, Kleist takes up the personal history that

⁴² Ibid. (*translator's note: Enlargement of knowledge, in contradistinction to exactness; extension opposed to intension), p. 96.

⁴³ Translated in Reinhardt and Oldroyd, 'Kant's Theory of Earthquakes and Volcanic Action', *Annals of Science*, p. 255.

Kant has decided to eschew and considers what such a vertical collapse might produce. In Kleist, as with Kant, there is no special interest in the ruin as an aestheticized architectural space; however, in Kleist's writing, there is a deep and mordant interest in the ruination of his characters.

In *Das Erdbeben in Chili* architecture is presented as something that can confine, limit, conceal and be destroyed. In Kleist's style of writing a relentless matter-of-factness drives the narrative and there is no concern or interest in inner states of being. It is through the intersection of the characters with architectural space that this story is delineated, and by outlining these structures Kleist creates a model where he may demonstrate and experiment with Kant's ideas. The first sentence opens, setting the story in the moments before the earthquake:

In Santiago, the capital of the Kingdom of Chile, at the moment of the great earthquake of 1647 in which many thousands lost their lives, a young Spaniard called Jerónimo Rugera was standing beside one of the pillars in the prison to which he had been committed on a criminal charge and was about to hang himself.⁴⁴

Kleist's narrative does not follow a conventional dramatic build-up to a terrible event – the earthquake – but instead follows the outcome of the catastrophe, where the disaster creates and changes both space and time for the two central characters of the story, only for it to be cruelly and irrationally snatched away from them. Notably, Kleist's first paragraph above parallels the opening statements of Kant's first earthquake essay, which in itself speaks of the precariousness of architecture Kant notes, 'We dwell peacefully on ground the foundations of which are battered from time to time. We build unconcernedly on vaults whose pillars sometimes sway and threaten to collapse.'⁴⁵ Kant's hypotheses on the causes of earthquakes are based on the idea of the instability of subterranean material, derived from known principles of how those materials may behave, or fail. Kant's thoughts are connected to the ground as the place and foundation for architecture, consequently leading to a consideration of architecture likewise as a material that may be potentially unstable.

Kleist is concerned with the precise moment of the earthquake. The opening

⁴⁴ Kleist, *The Marquise of O— and Other Stories*, p. 51. Kleist and two companions who, like himself were discharged Prussian officers were detained in Boulogne in February 1807, then transferred to Fort de Joux in March 1807 and subsequently to Châlons-sur-Marne prison until their release in July 1807. During his imprisonment Kleist continued writing; this was the stimulus for the story *Die Verlobung in St Domingo* (*Bethrothal in Santo Domingo*) 1811 and is represented in *Das Erdbeben in Chili*.

⁴⁵ Translated in Reinhardt and Oldroyd, 'Kant's Theory of Earthquakes and Volcanic Action', *Annals of Science*, p. 253.

image of the story locates the central character against a pillar that, for the moment, holds up the prison and is to be the means by which he was going to hang himself. Kleist has precisely plotted place and time in this opening of the story: place is the prison, and time becomes the space between the point at which the protagonist gives up all desperate hope of escape and when he was going to hang himself, into which imminence the earthquake strikes. In his 1756 essay, Kant is also concerned with the precise time of the earthquake: ‘The moment, at which this shock happened, seems to be the most accurately determined at 50 minutes past nine o’clock a.m. at Lisbon.’⁴⁶ He further charts the precise time when the tremors were felt in different parts of Europe. Kleist’s account of the physical actuality of the earthquake parallels the accounts of the Lisbon earthquake in 1755. According to Kendrick’s history, the earthquake took place at about 9.30 am on All Saints’ Day on Saturday, 1 November 1755, and while this is less accurate than Kant’s precise sense of time, Kendrick outlines the three shocks that were felt about a minute apart:

The first alarm was a rumbling noise [...] then there was a brief pause, and a devastating shock followed lasting over two minutes, that brought down roofs, walls, façades of churches, palaces and houses and shops in a dreadful deafening roar of destruction.⁴⁷

For Kant the exact data on time appear to be one of the few certainties available, and he is concerned to record it, whereas later historians are less concerned with such precision of time, as it had little bearing on subsequent scientific knowledge. Kant did not offer any comment on the observations by survivors of the separate shocks, even though in Lisbon there were three distinct shocks close together. The earthquake in Lisbon was cast as a significant European event:

Almost all over Europe, including Scandinavia, the water in rivers, canals, lakes, and ponds and springs was seen to be suddenly disturbed or to rise and fall in an abnormal manner.⁴⁸

In *Das Erdbeben in Chili*, the background to Jerónimo’s predicament was that he had been tutor to Doña Josefa, the only daughter of the richest nobleman in the city, who thought he had become too close to her and threw him out. Her malicious brother discovered them in a secret rendezvous; she then is forced into a convent, where a chance encounter in the garden allowed the

⁴⁶ Kant, *Essays and Treatises on moral, political, religious and various philosophical subjects* 1799, p. 103.

⁴⁷ Kendrick, *The Lisbon Earthquake*, p. 24.

⁴⁸ Ibid p. 25. This is the first observation of the phenomena later identified as seismic seiches. <<http://earthquake.usgs.gov/learn/topics/seiche.php>> [accessed: 2 February 2014]

lovers to consummate their liaison. Subsequently Josefa had a baby, causing ‘an extraordinary public stir’.⁴⁹ The Archbishop insisted that both be put on trial, and they were condemned to death. The narrative framework is presented in spatial and architectural terms: the father’s house, the convent, the garden, the cathedral and the prison. These buildings *are* the family, the church, the law. Later, in the havoc following the earthquake, Kleist portrays the collapse of these very buildings and institutions that separated the lovers and caused them such anguish. It is through the proximity to and agency of architecture that Kleist demonstrates the prurient interest the rare occurrence of an aristocratic execution has generated:

In the streets through which the culprit was to be led to her execution the windows were rented, the roofs of the houses were partly dismantled, and the pious daughters of the city invited their female friends to witness with them [...] ⁵⁰

This morbid and grotesque spectacle is about to be destroyed by the earthquake.

Jerónimo’s escalating and intense sense of desperation and panic is emphasised in the insurmountable architecture of his confinement: bolts, locks, bars, and impenetrable walls. He is running out of time, and frantically prays to an image of the ‘Holy Mother of God [...] convinced that she alone could save him now.’⁵¹ This suggests a possible inversion in the interpretation of the cause of the disaster in the story, that in praying to be saved, Jerónimo has unconsciously asked God for the earthquake; an idea contrary to the position of the church, in both the story and the real event in Lisbon in 1755, where the church blamed the earthquake on the godlessness of the people. This paradox both reveals Kleist’s humour and shows him working with the themes of uncertainty derived from reading Kant. Time is the key element brought into play in order to demonstrate the simultaneity of events: Jerónimo hears the bell toll the last journey of Josefa to her execution and, unbeknownst to all, the time leading up to the earthquake is also being counted. The earthquake dramatically ruptures the interlocked relation between the time and space of Josefa’s execution and Jerónimo’s desperation. Time is precariously poised between imminence and advancement. The spaces between the tolls of the bell mark out the small increments of advancing time; in this sense the scene evokes a Kantian notion of time and space.

Jerónimo resolves to end it all, ‘[...] when suddenly, with a crash as if the very

⁴⁹ Kleist, *The Marquise of O – and Other Stories*, p. 51.

⁵⁰ Ibid. p. 52.

⁵¹ Ibid. p. 52.

firmament had shattered, the greater part of the city collapsed, burying every living thing beneath its ruins.⁵² Kleist uses the moment of the earthquake to invert Jerónimo's circumstances from certain death to grasping on to life:

[...] great cracks appeared in the walls all round him, the whole edifice toppled towards the street and would have crashed down into it had not its slow fall been met by that of the house opposite, and only the arch thus formed by chance prevented its complete destruction.⁵³

The collapse of the goal is at the same time both experienced and observed by the horror-struck Jerónimo: he simultaneously witnesses the progression of the collapse of the building, where the slow collapse of the prison happens in real time, and concurrently the frightful circumstance of the earthquake has made time, momentarily, stand still. The collapsing wall is met by the wall opposite, and the consequent 'arch formed by chance' by the random disaster creates a threshold through which Jerónimo can pass as he survives and escapes. The arch created by the collapse of the prison walls has created time as well as space. The remainder of the story takes place in the time created by escape from both the intended use of the prison architecture as the means of his suicide, and the provisional architecture made by the earthquake through which Jerónimo is able to escape. The collapsing building demonstrates how, in the cataclysm of an earthquake, architecture can be remade by chance. This image of the two walls collapsing together has a corollary in the initial metaphor of the arch where Kleist observed that '[...] *all the stones tend to collapse at the same time*'⁵⁴ in the moment of the earthquake an arch is made because the walls of two collapsing buildings fall towards each other *at the same time*.

Earthquakes in cities, towns, or villages are massive architectural events. Kleist describes the kind of death and destruction occurring as a result of earthquake where crushing, entrapment, burning and drowning cause most of the casualties – circumstances well documented in the Lisbon earthquake of 1755. Unlike Kant, Kleist identifies the concept of separate tremors⁵⁵ within the earthquake, and these become temporal spaces that the narrative can momentarily inhabit. For example, 'He was scarcely outside when a second tremor completely demolished the already subsiding street.'⁵⁶ Jerónimo darts and weaves through the collapsing Santiago, which is represented as an architecture in turmoil:

⁵² Ibid.

⁵³ Ibid. p. 53.

⁵⁴ Kleist, *An Abyss Deep Enough*, p. 76.

⁵⁵ The observation of separate shocks was not something that reached Kant.

⁵⁶ Kleist, *The Marquise of O– and Other Stories* p. 53.

Panic-stricken [...] he ran over wreckage and fallen timber towards one of the nearest city gates, while death assailed him from all directions. Here another house caved in, scattering its debris far and wide and driving him into a side street; here flames, flashing through clouds of smoke, were licking out of every gable and chased him in terror into another [...] ⁵⁷

Kleist has depicted the consequences of an earthquake on the architecture of a city and its inhabitants with considerable understanding, which could only come from reading first-hand accounts written by survivors of a recent event of the magnitude of the earthquake in Lisbon in 1755.



2.1 The Ruins of Lisbon 1755,
German copperplate,
artist unknown.

Following the moment of the earthquake, Kleist now changes time from the forward movement marked by the bell, to one of simultaneity. The destruction of the city returns to the tension of the arch, because the earthquake has caused the city to behave as if it were the arch, where collapse occurs '*at the same time*'. The earthquake is a singular, simultaneous upheaval. In his essay on the earthquake in Lisbon, Walter Benjamin quotes from an Englishman living in the city:

There was a shattering noise, as if all the buildings in town were collapsing at the same time. My house too, was profoundly affected: the upper stories instantly collapsed, and the rooms I was staying in swayed so much that all the utensils came crashing down. I truly thought

⁵⁷ Ibid.

my last moment had arrived, for the walls were bursting apart and great stones were falling out of the joints – all the beams seemed to be supported by thin air.⁵⁸

There are a number of parallels here with Kleist's ideas; the suggestion above that everything in the city was '[...] collapsing at the same time' mirrors Kleist's notion about the stones of the arch. The unnamed Englishman explains how he survived for accidental and arbitrary reasons, because he was not dressed at the time; and as with the fictional Jerónimo, the Englishman describes how he escapes to higher ground beyond the city. In *The Ruins of Lisbon* (Fig. 2.1),⁵⁹ a contemporary German engraving depicting the aftermath of the 1755 Lisbon earthquake, the background shows the turbulent effect of the earthquake on the city's architecture – buildings are roofless, walls have fallen, and among the debris the striking and repeated visual motif is that of the destroyed and broken arch in a state of partial collapse.

Kleist parallels the actual events following the earthquake in Lisbon, where the surviving populace fled the city en masse to the open countryside, since, in the aftermath of the earthquake, the first instinct was to flee the uncertain and precarious architecture of the city. Kendrick notes that there was a:

[...] desperate scramble to get out of Lisbon by frightened mobs of hysterical people, clutching crucifixes and images of saints, and bits and pieces of belongings, all trying to reach open country. Almost every section of the population was represented among the refugees.⁶⁰

In the open country outside Lisbon, people lived for many months in tents and huts, too frightened to dwell in anything more substantial. The open landscape seemingly offered a sense of safety because of the absence of any permanent architecture. A young English nun, Kitty Witham, wrote to her mother about her experience of surviving the Lisbon earthquake. She carefully describes the series of provisional, temporary structures that they lived under because of the fear of further tremors, each becoming a little more substantial and longer-term:

⁵⁸ Walter Benjamin, 'The Lisbon Earthquake' in *Selected Writings Volume 2, 1927–1934*, trans. by Rodney Livingstone and others, ed. by Michael W. Jennings, Howard Eiland, and Gary Smith (Cambridge, MA: Belknap Press, Harvard University, 1999), p. 539. Benjamin draws on contemporary observations of the Lisbon earthquake for his 1931 radio broadcast. He focuses on personal, eyewitness accounts of the earthquake published as pamphlets, which created horror and fascination in the most powerful earthquake in recorded in European history.

⁵⁹ This engraving is dated 1755, but since the earthquake occurred on 1 November 1755, it is seems unlikely an engraving of this detail could appear before the end of 1755, even though the news of the event spread quickly.

⁶⁰ Kendrick, *The Lisbon Earthquake*, p. 36–37

We layed under a pair tree, covered with Carpett, for Eight days, I and some others being so vere frighted every time the wind blode the tree, I thought we was going, so could not possible rest there, so we went to the Open air and slept there with much Pleasure, then the good fathers made us anothr little place with sticks and Covered with Matts, where some of us rested there a few Nights with the two fathers who came to us that Morning and glad to see us all alive as we was to see them. We have got a Wooden houes made in the garden, where the two good fathers and aboute half of us lives and lays there, but we lye in our Cloes I have never lain without my Cloes since All Saints. [sic] ⁶¹

Even the royal family were not exempt from the same state of abject panic and fear of further collapse of their city. At the time of the earthquake, the royal family were staying at one of their residences at Belem:

[...] but they moved at once into a suite of tents in an open space close at hand, and there they stayed for nine months until a big quadrangular wooden lodging [...] had been erected for them⁶²

The royal family occupied this provisional city for a considerable time, and a great number of the populace followed suit. In the engraving of *The Ruins of Lisbon* the foreground shows a tightly packed city of tents being established – figures are carrying bedding and bundles to the tents, families are shown in various states of activity, from talking to working, people have their arms raised towards heaven, and one woman is caught as she falls in a faint. In the upper left background, figures are shown still running from the city. Such provisional living arrangements following the earthquake demonstrate both fear of further collapse of the city and the uncertainty of return.

As the narrative of *Das Erdbeben in Chili* continues, corresponding to the events that occurred in Lisbon, Jerónimo reaches the rural outskirts, faints in exhaustion and, regaining consciousness, sees Josefa and their child. They are overjoyed and believe divine miracle has saved them. In her concurrent story, the earthquake intervenes moments before her execution; she escapes, and rushes to rescue their baby from the convent:

[...] which was already collapsing all round her [...] She was just about to embrace the Abbess when the latter [...] was ignominiously struck dead by a falling gable, together with nearly all her nuns.⁶³

⁶¹ Birmingham, *A Concise History of Portugal*, p. 74.

⁶² Kendrick, *The Lisbon Earthquake*, p. 40.

⁶³ Kleist, *The Marquise of O– and Other Stories*, p. 56.

The death of the merciful Abbess as well as the vengeful Archbishop, who condemned the lovers to death, highlights the irreconcilable contradiction that both the good and the bad are equally killed by earthquake. The fact that in Lisbon casualties occurred while people were inside churches, worshipping on the morning of All Saints' Day, caused great consternation for the church, which sought to re-establish its authority by trying to coerce the frightened populace into the belief that the earthquake was God's retribution and punishment on a godless city. Yet, Poirier notes that at the time of the earthquake in Lisbon, 'Monks and priests made up a sixth of the population [...]',⁶⁴ which is a sizeable percentage.

In the chaos caused by the disaster in the story, the lovers squeeze through the fissures of space and time created by the earthquake. After Jerónimo and Josefa are reunited outside the city walls, a rural interlude ensues, which is both an idyll and in which the narrative reconvenes and converges into their shared story. The refuge outside the city is not presented as a conditional one, where nature is restorative and the city is destructive, but the location is more of a place that is not defined by architecture: not the place of their troubles, and not the collapsing city. While they are in the forest they meet an aristocratic acquaintance of Josefa's who asks if Josefa will nurse his sickly infant, whose mother is injured. She agrees to share, and they are taken into the family circle of Don Ferando and Doña Elvira.

Jerónimo and Josefa are lulled into believing that there might be a 'spirit of reconciliation'⁶⁵ in the aftermath of the earthquake, they agree to petition for clemency. The party decide to go to mass at the only surviving church, though Doña Elvira's sister has an unknown sense of dread, of 'unhappy foreboding'.⁶⁶ The thanksgiving is led by one of the oldest canons: '[...] pointing to a crack in the wall of the cathedral, he called yesterday's earthquake a mere foretaste of that day of doom, a shudder ran through the whole congregation.'⁶⁷ The genuine terror of further tremors is manipulated by the canon as fear of the last judgement. As with the events following the earthquake in Lisbon, moral laxity was held up as a reason for the disaster. In *Das Erdbeben in Chili* the canon particularly cites the actions of the young lovers and, believing they were dead, 'consign[s] their souls to all the princes of hell'.⁶⁸ This indeed ensues, as the priests stand by while the congregation turns into a vengeful, murderous mob that confront and attack the party. This is the last reference to any member of the clergy in the story; they become an absence, collapsing into the void they have initiated, as amoral lawlessness gains the upper hand. The intense respite

⁶⁴ Poirier, 'The 1755 Lisbon disaster, the earthquake that shook Europe', *European Review*, p. 170.

⁶⁵ Kleist, *The Marquise of O- and Other Stories*, p. 59.

⁶⁶ Ibid. p. 62.

⁶⁷ Ibid. p. 63.

⁶⁸ Ibid. p. 64.

of happiness and optimism of the reunited lovers and the presence of their child is thus short-lived, and is not enough to save them from the opprobrium of the angry rabble: 'And the whole assembly of Christians in that temple of Jesus raised a cry of 'Stone them! Stone them!''⁶⁹ Jerónimo's own father confirms that he is indeed Jerónimo Rugera, then kills him. The frenzied crowd, mistakenly taking the second sister-in-law as Josefa, kill Doña Constanza. Josefa is recognized and slain by her family's cobbler, Master Pedrillo, who:

Then, drenched with her blood, he shrieked: 'Send her bastard to hell after her!' and pressed forward again, his lust for slaughter not yet sated. [...] but Master Pedrillo would not give up until he had seized one of the infants by its legs, dragged it from Don Fernando's grasp, and after whirling it round in the air above his head, dashed it against one of the pillars of the church.⁷⁰

Thus the deaths of Jerónimo, Josefa, their friends, including Doña Constanza and mistakenly Don Fernando's child, Juan, are absorbed into the very architecture of the church against the walls and the pillars.

In the final, intense and curious coda to the story, Don Fernando and Doña Elvira adopt Jerónimo and Josefa's child Felipe, who, having survived the collapse of the law and of the morality of the church, becomes the piece of wreckage to which Don Fernando clings. Throughout the story, the vivid descriptions have a visceral and material quality. Kleist is more interested in the function and operation of Catholicism as form rather than content: Catholicism gives the story its narrative pretext, rather than a governing moral principle. Kleist demonstrates hypocrisy and the descent into amorality. The church does not carry out the execution of the lovers, but leaves it to the frenzied mob. However, in outlining the extremes of punishment and revenge sanctioned by the church, Kleist does seem to revel in violence. In the aftermath of the Lisbon earthquake, the Inquisition saw an opportunity to re-establish its authority, but the blame and fear generated caused such trepidation that the outcome forced the opposite – further sanctions against the Jesuits were implemented by the effective leader of the reconstruction, Marquês de Pombal.⁷¹ Within days of the earthquake in Lisbon, in order to establish power over a frenzied and chaotic populace, and to prevent opportunistic looting, there were swift reprisals and as many as thirty-five⁷² executions took place. An example of this can be seen in the middle ground of the engraving of *The Ruins of Lisbon*, where two figures are shown being strung up on a gibbet.

⁶⁹ Ibid. p. 65.

⁷⁰ Ibid. p. 66–67.

⁷¹ Sebastião José de Carvalho e Melo (1699–1782) statesman and king's envoy took effective leadership after the earthquake. He organized relief and reconstruction and repressed unrest from the aristocracy and the Jesuits.

⁷² Kendrick, *The Lisbon Earthquake*, p. 50.

In *Das Erdbeben in Chili* the underlying question of God is subsumed as the law and the will of the Catholic church and as a precondition for the plot to advance. As the buildings of the church crack and collapse, the church's response to the disaster causes its moral authority to be compromised. The underlying and unuttered question for Kleist seems to be: has faith in the concept of God also collapsed? In the third reflection of Kant's 1763 essay, he struggles to balance the existence of God with science and natural phenomena: 'Something is subsumed under the order of nature if its existence or its alteration is sufficiently grounded in the forces of nature.'⁷³ This suggests that nature, in acting as a force, operates within its own order, rather than that of the will of God. Kant further writes, 'Such events are also called, quite simply, *natural* events of the world. On the other hand that which is not subsumed under such a ground is something supernatural.'⁷⁴ In this essay Kant appears to be retreating from or qualifying the position he put forward in the earthquake essays, where he stated that the earthquakes were solely the effect of natural forces, and now it may be surmised that, on reflection, Kant feels compelled to include God into the natural order. Nevertheless, he does retain much of the perspective advanced in the earthquake essays, saying that such phenomena are:

[...] attributed to a natural cause. And that attribution implies that the event in question was a misfortune, not a punishment: man's moral conduct cannot be a cause of earthquakes according to a natural law, for there is no connection here between the cause and the effect.⁷⁵

As with Kant's view here, in *Das Erdbeben in Chili* Kleist analyses this lack of connection between the cause and the effect – that the moral laxity of Jerónimo and Josefa are not to blame for the earthquake in Santiago. Kleist demonstrates that the lovers are not really wicked – they did not kill or injure or steal – and implies that they do not deserve the punishment of execution as *auto-de-fé* meted out by the church. The earthquake spared them and killed their executioners; the earthquake demolished the walls, streets and spaces that confined and separated them. The physical and random collapse of the city created provisional architecture made by the earthquake, which became their temporary means of escaping their fate. At the centre of this disaster Kleist creates a paradox: at the very moment of the collapse of the prison an arch is created, so that instead of falling down a structure is made, and instead of dying Jerónimo grasps on to life, only to die in the collapse of the society itself.

⁷³ Kant, 'The Only Possible Argument in Support of a Demonstration of the Existence of God', in *Theoretical Philosophy 1755–1770*, p. 146.

⁷⁴ Ibid. pp. 146–47.

⁷⁵ Ibid. p. 147.

4. Internal, social and moral collapse

In *Das Erdbeben in Chili* the material collapse caused by the earthquake is paralleled by the collapse of certainty in the social order. This is shown as the uncertain hold of civilized society in a far-flung colony. Any optimism that social formations can offer its constituents are destroyed; the central characters' hopes are dashed, trammelled by the ruthlessness and ghastly bloodlust perpetrated by a congregation inside a cathedral, who not only kill the lovers and one of their friends, but, worst of all, also Don Fernando's baby. In the rural interlude enjoyed by the reunion of Jerónimo, Josefa and their baby they hope the cataclysm of the earthquake may have made their society more tolerant and lenient towards their misdemeanours.

All of Kleist's dramatic and fictional writing exists after he had read Kant's critical writing. Encountering the uncertainty of truth in Kant's critical writings had a bearing on how Kleist represented the collapse of hope in *Das Erdbeben in Chili*. In her essay, 'No Way Out: Heinrich von Kleist's *Erdbeben in Chile*' [sic], the key position of Luanne Frank's argument centres on her question: 'Why, for Kleist, was uncertainty not an option?'⁷⁶ She proposes that the answer to this is suggested in Heidegger's 1942–43 seminar, adding that 'the culture Kleist inherited was hard-wired for certainty',⁷⁷ further arguing that:

Rationally speaking, he could see that there was no certainty [...] At the same time, he could not relinquish certainty, anchored as he was in an *epistème* grounded in its faith in this concept – an *epistème* for which certainty was the very meaning of truth.⁷⁸

The assertion by Luanne Frank is that Kleist remained locked into the early formation of empiricism and the concept of uncertainty was not a viable intellectual possibility, even though the collapse of certainty was a repeating motif at the heart of Kleist's writing. Luanne Frank's misreading of Kleist rests on the emotive assertion that Kleist's encounter with Kant is an '[...] "earthquake". And earthquake for Kleist [...] means Lisbon'.⁷⁹ This comparison unhelpfully merges Kleist's inner state of being, his story *Das Erdbeben in Chili*, with the real historical event of 1755 in Lisbon. The application of earthquake as a metaphor for an internal state is over-determined. Other scholars have also been drawn into this metaphor; for example, Karlheinz

⁷⁶ Luanne Frank, 'No way out: Heinrich von Kleist's *Erdbeben in Chile*', in *The Lisbon Earthquake of 1755: Representations and Reactions* ed. by Theodore Braun and John Radner, Studies on Voltaire and the Eighteenth Century, Vol. 2 (Oxford: The Voltaire Foundation, 2005), p. 278.

⁷⁷ Ibid.

⁷⁸ Ibid. p. 147.

⁷⁹ Luanne Frank, 'No way out: Heinrich von Kleist's *Erdbeben in Chile*', in *The Lisbon Earthquake of 1755: Representations and Reactions*, p. 268.

Stierle suggested that Kleist suffered ‘ “[ein] Beben des Bewusstseins” (a quaking of consciousness),’⁸⁰ though this observation seems a more appropriate description of the effect on Kleist’s thinking, as it suggests the disturbance and agitation of his perception of the world.

In contradiction to her view about Kleist’s internal state, Luanne Frank further asserts that he read Kant’s earthquake essays and they ‘riveted Kleist’.⁸¹ She additionally suggests that there is a notion of collapse as ‘ “der Zusammensturz des Allgemeinen” (the collapse-in-upon-itself of the general),’⁸² which is explained as Kleist’s ‘abandonment of the general for the particular’.⁸³ This interpretation of collapse for Luanne Frank is one where collapse can only crumple on top of itself as emotional breakdown and, as such, can only be inner and psychic. She does not suggest further conceptual readings of collapse as philosophical, moral, social or architectural – as well as psychic – all of which are described and articulated by Kleist. Werner Hamacher’s essay on *Das Erdbeben in Chili*, suggests that the primary theme of Kleist’s work is ‘accidentality’⁸⁴ that *Zufall* (accident, chance) comes from a ‘collapse of the rules’.⁸⁵ Hamacher refers to Kleist’s letter delineating the arch which may fall, suggesting that collapse operates only inasmuch as it is an action of ‘accidentality’⁸⁶ as it leads to a fall, both religiously and psychologically. Neither Luanne Frank nor Hamacher suggest the potential interpretation of collapse in and of itself.

In the murderous and bloodthirsty conclusion to *Das Erdbeben in Chili*, Kleist identifies the Roman Catholic Church as a social order that can collapse at the very moment it is trying to wrest control over its flock. The crack in the wall of the Dominican cathedral presaged doom for the church, since the structural damage is architectural and material as well as worldly and political. When the canon and the priests abdicate all responsibility and abandon Jerónimo and Josefa to their miserable fate as the congregation turns into a murderous mob, the moral credibility of the church itself is destroyed. The outcome of the earthquake is a collapse of the church’s potential to represent the last remnant and hope of civilization – without falling down, the church has collapsed. The most appalling representation is material and architectural: the death of Don Fernando’s baby, by the frenzied Don Pedrillo who ‘dashed it against one of the

⁸⁰ Ibid. p. 269. Quoted from Karlheinz Stierle ‘Das Beben des Bewusstseins: Die narrative Struktur von Kleist’s *Das Erdbeben in Chili*’.

⁸¹ Ibid. p. 266. Luanne Frank does not give a source for this.

⁸² Helmut J. Schneider ‘Der Zusammensturz des Allgemeinen’, quoted in Ibid. p. 269.

⁸³ Ibid.

⁸⁴ Werner Hamacher, *Premises: Essays on Philosophy and Literature from Kant to Celan*, trans. by Peter Fenves (Cambridge, MA: Harvard University Press, 1996) p. 267.

⁸⁵ Ibid. p. 268.

⁸⁶ Ibid. pp. 270–271.

pillars of the church'⁸⁷ – the structural device holding up the church is now the material cause and site of the baby's gruesome death. There were no pillars of the church, those praiseworthy individuals in a congregation, to come forward and provide any sense of justice or righteousness. In this instance the morality of the congregation too has failed, or collapsed, when no one intervened to stop the murderous rabble, such as the high-ranking naval officer known to Josefa and Don Fernando, who appears through the throng, but does nothing, except to lend Don Fernando his sword. Returning after the killing spree '[...] assured him that although his own inaction during this terrible event had been for various reasons justified, he now keenly regretted it.'⁸⁸ For Kleist, hypocrisy, too, is another form of collapse.

During the course of the story, Kleist delineates three forms of justice. Firstly, that of the church: in this instance, a reference to the Inquisition, which had considerable power in Lisbon prior to the earthquake in 1755; secondly, divine justice that may or may not have caused the earthquake; and thirdly, the summary justice of the lynch mob. Following the earthquake in Lisbon, Thomas Chase, an Englishman born in Lisbon, recorded his fear of the behaviour of the people after the disaster, who believed that this was the punishment of Judgement Day: 'It was impossible to guess what turn their furious zeal might take against that worst of criminals, a *Heretic!* This made me dread the approach of every person.'⁸⁹ This offers insight into the deaths of the two main characters of *Das Erdbeben in Chili*, who are punished by the church and the mob, but specifically and significantly did not receive divine punishment by the earthquake. In elaborating the collapse of hope in the latter part of the story, Kleist begins by proposing the dilemma, that if the earthquake was divine punishment, why were the lovers able to avoid death? How was it a 'divine miracle'⁹⁰ that they were not killed by the cataclysm? In this sense this idea matches Kant's caveat regarding the perception of disastrous natural phenomena, namely, that they do not, and cannot, punish a populace. In the story, the collapse of hope in the aftermath of the earthquake, where Jerónimo and Josefa's belief in the uplifting 'divine miracle' that spared them from death in the cataclysm, takes the form of their aspiration for clemency. It is the role of the church as arbiter of the law and the agency that may offer a merciful reconsideration of the lovers' punishment that Kleist explores, to chilling effect. In the first part of the story the archbishop insisted they be tried and punished for their affair in the convent and for their illegitimate child; however unfair and excessive this trial seemed in producing the punishment of execution, there was the semblance of a judicial process, whereas in the end –

⁸⁷ Kleist, *The Marquise of O– and Other Stories*, p. 67.

⁸⁸ Ibid. p. 67.

⁸⁹ Poirier, 'The 1755 Lisbon disaster, the earthquake that shook Europe', *European Review*, p. 171

⁹⁰ Kleist, *The Marquise of O– and Other Stories*, p. 55.

the outcome of lynching innocent and guilty alike by a rabble – the effects or the consequences dreadfully outweighed the causes.

As such, in *Das Erdbeben in Chili* the collapse of justice is a structural collapse whereby justice can be interpreted as the internal, unseen pillars holding up society, similar to the way Kleist had imagined, when he conjured the arch metaphor, that his internal state of being would weather all kinds of vicissitudes. The collapse of justice is analogous to the physical collapse of the fabric of the city, though Kleist does not resolve at which point justice fell apart – before the earthquake or after it – and leaves the question open as a moral conundrum. This story anticipates the question of the collapse of justice explored in *Michael Kohlhaas*, written a year later, in 1808. Though *Das Earthquake in Chili* is his earliest published story, Kleist had already produced a considerable amount of dramatic writing and tended to work on a number of pieces simultaneously.⁹¹ In his stories and novellas Kleist experimented and engaged with the philosophical ideas concerning the collapse of certainty, and the uncertainty of the veracity of truth that emerged after he read Kant's critical writing. In *Das Erdbeben in Chili* a number of complex themes coalesce with reference to the real historic event of the earthquake in Lisbon in 1755: the breakdown of social formations, the materiality of architecture, the philosophical questions raised by Kant's natural philosophy and *Critiques* – for Kleist, all these manifested as collapse.

⁹¹ For example, previously in 1803, Kleist was working on the plays *Der zerbrochne Krug* (*The Broken Jug*) and *Amphitryon* and the novels *Die Familie Schroffenstein* (*The Family Schroffenstein*) and *Robert Guiskard* (*Robert Guiscard*).

Part 2

Collapse as contested territory

1. The threshold: borders and spatial collapse in *Michael Kohlhaas*

In the long novella *Michael Kohlhaas*, first published in 1808 then re-worked and published again in 1810, the theme of collapse is represented as the collapse of justice.⁹² The story centres on the slippage of justice between the borders of two states. In this novella Kleist explores the eponymous Kohlhaas's crusade for justice as a dispute waged across a horizontal terrain, a battle that is spatialized as territory and border. The border between the two states is a space, but it is also a place, a specific site, and owing to the existence of this boundary, whether arbitrary or not, Kohlhaas is placed – he cannot be nowhere. The story is set in the past – in the sixteenth century – and was suggested to Kleist by his friend Pfuel, who read a historical account of the execution of the merchant Hans Kohlhasse in the *Märkische Chronik* of Peter Hafftiz.⁹³ The merchant Hans Kohlhasse, was publicly beheaded in 1540 after a spree of robbery, pillage and killing, a consequence of his rights having been abused by the Elector of Saxony. Maass notes that this subject was one Kleist felt a particular affinity for, in the way the historical account matched, '[...] his insistence on absolutes'.⁹⁴ Subsequent to the historical execution of Hans Kohlhasse near Berlin, the site was referred to as 'Kohlhasenbrück',⁹⁵ the name chosen as the village of Kleist's central character. The real events took place in the sixteenth century, at a time when Luther began to identify and separate the laws, rights and duties of the church from those of the state and the individual. This was presented in his political text *On Secular or Temporal Authority* (*Von Weltlicher Oberkeit*) of 1523, the significance of which, according to Elden was that:

Luther repudiated any claim by the church to exercise power over temporal affairs. [...] Instead, for Luther, Christians live in two kingdoms – that of

⁹² Exploration of the incomprehensibility of justice in *Michael Kohlhaas* was an important source and starting point for Kafka's *Der Prozeß* (*The Trial*) (1925). Kafka's literary executor, Max Brod, recalls Kafka reading Kleist to him. Kafka read it publicly:

11 December. In Toynbee Hall read the beginning of *Michael Kohlhaas*. Complete and utter fiasco. Badly chosen, badly presented [...] Read wildly and badly and carelessly and unintelligibly. And in the afternoon I was already trembling with eagerness to read, could hardly keep my mouth shut.

Franz Kafka, *The Diaries of Franz Kafka*, ed. by Max Brod, (London: Penguin Books 1982), p. 124. In *Der Prozeß* and *Das Schloß* (*The Castle*) there is repetition and alliteration the names of the central character, K. – Kleist, Kohlhaas, Kafka, (even Kant).

⁹³ Noted in Maass *Kleist: a biography* pp. 107–108

⁹⁴ Ibid. p. 106.

⁹⁵ It was in the present day district of Wannsee; strangely very near the site of Kleist's suicide in 1811.

Christ and that of the world.⁹⁶

In Kleist's story Luther features as a significant figure, especially for his moral rectitude and trustworthiness, and as a matter of historical authenticity, because Luther had written a letter to Hans Kolhase on 8 December 1534.⁹⁷ In the circumstances of the late eighteenth and early nineteenth centuries, Kleist locates the story within the real problems caused by the large number of states that made up Germany in the century prior to unification, when the borders between them created on-going political difficulties; this was particularly so in the context of the Napoleonic wars, when various states were occupied and allegiances were shifting and changing. In this novella Kleist explores the uncertainty of place through borders, states, territory and war, where that uncertainty leads to collapse as an individual's search for legal clarification and restitution engenders a moral crusade that ends in disaster.

The question of a located place raises questions about territory, as Elden notes:

Territory is not simply land, in the political-economic sense of rights of use, appropriation, and possession attached to place; nor is it a narrowly political-strategic question that is closer to a notion of terrain. Territory comprises techniques for measuring land and controlling terrain. Measure and control – the technical and the legal – need to be thought alongside land and terrain.⁹⁸

He further asserts that, '[t]erritory, then, as a word, concept, and practice, is a historical, and political question.'⁹⁹ For Elden the history of the concept of territory emerges as the state begins to identify itself. He notes that '*territorium* is a very rare word in classical Latin'¹⁰⁰ and even in the Renaissance: 'Despite how Machiavelli is often read, and translated, he did not have a concept of territory and did not see political power as preeminently related to land.'¹⁰¹ In Machiavelli power is located in the will, might, riches, lineage and body of the prince through the structures of feudal hierarchies. The political reasoning of the Reformation changed the thinking concerning territory. This was demonstrated in Germany through Luther and later followed through in the work of the German jurist and political adviser Andreas von Knichen in his book *De sublimi et regio territorii iure* 1600. The book's significance, according to Elden, is Knichen's argument that 'Jurisdiction is permanently attached to territory',¹⁰² a position from which the law has never retreated.

⁹⁶ Stuart Elden, *The Birth of Territory* (Chicago: University of Chicago Press, 2013) p. 256.

⁹⁷ See Mehigan, *Heinrich von Kleist: Writing After Kant*, p. 82, footnote 20.

⁹⁸ Elden, *The Birth of Territory*, pp. 322–23.

⁹⁹ Ibid. p. 328.

¹⁰⁰ Ibid. p. 278.

¹⁰¹ Ibid. p. 14.

¹⁰² Ibid. pp. 286–87.

Thus the practice and history of territory is one where place is territorialized and is generated through shifting interpretation and claims over place, but this is enacted through time and through fluctuating social imperatives which may not necessarily be universally beneficial. Consequently, territory can be determined and interpreted according to law, however hastily the latter may have been assembled.

The Kleist novella centres on Michael Kohlhaas, an honest and righteous horse trader, who was born in Brandenburg and owned property in Saxony, which made him a subject of both, and therefore legitimately existing and operating between both states. The sorry tale begins when Kohlhaas encounters a new tollgate beside a castle as he crosses into Saxony to sell some horses; he pays the toll, only to be told that he must now have a permit to cross the border. The construction of the tollgate returns to Kleist's concept of the arch that might collapse; here the arch can be interpreted as a vertical threshold, and that, by traversing such a threshold a material and technical change occurs, a collapse – not of the arch but of the certainty between the territories. As the means of crossing or causing permeability between the borders, the tollgate or threshold defines and frames the border. It is also a reminder of Agamben's point that the threshold is not, '[...] the experience of the limit itself, the experience of the being – *within* an *outside*'.¹⁰³ Kohlhaas experiences the limit materially and as an arbitrary demarcation, and for him it is the incomprehension of being '*within* and *outside*'. In this sense, the limit reached is defined in political terms because Kohlhaas fails to comprehend the application of power over the entry into a territory, or the defining of territory and who are, or may be, the subjects of that territory or place.

How does the boundary operate? In order to elucidate this, the perspectives of geography, space, place and history intersect as concept, practice and conflict can be considered. In the introduction to his *Physical Geography*, Kant stated that, 'Physical Geography is thus a general outline of nature, and, because it is not only the ground of history but also that for all other possible geographies [...].'¹⁰⁴ He lists these as mathematical, moral, political, mercantile and theological geography;¹⁰⁵ as such, geography is clearly seen as the deep connection between physical terrain and those who live in and on it. While the 'ground of history' may be indicative of the history of nature and the natural formation of the earth, *Physical Geography* is primarily constructed as a physical description of place, especially gathered by eighteenth-century exploration, but Kant does not specifically rule out philosophical, political, moral and theological histories – in other words, the idea that discourse exists over space. Malpas and Thiel

¹⁰³ Agamben, *The Coming Community*, p. 68.

¹⁰⁴ Kant, *Natural Science*, p. 451. Kant's emphasis.

¹⁰⁵ Ibid. pp. 451–52.

argue that a connection exists between the concepts of the spatial developed in Kant's *Critique of Reason* and in his *Physical Geography*, because from two perspectives he identifies the complexities and questions of geometries of space and the experience and practice of what is encountered in a place.¹⁰⁶ They argue that the geographic informs Kant's thinking in the *Critique of Reason*, especially in relation to the concept of the boundary, space and limit. They refer to the *Prolegomena* where Kant argues that space is found outside the boundary.¹⁰⁷ Kant further suggests that:

[...] in all boundaries there is something positive (e.g., a surface is the boundary of a corporeal space, yet it is nonetheless itself space; a point is the boundary of a line, yet is nonetheless a locus in space), whereas limits contain mere negations.¹⁰⁸

In this instance Kant brings together a number of themes: geography, science and geometry, but specifically does not close them off or separate them. However, Malpas and Thiel further argue:

The manner in which Kant characterizes the idea of boundary invokes the geographical [...] but Kant's characterization is also explicitly topographical inasmuch as the idea of boundary is directly connected with the idea of a location or place.¹⁰⁹

Returning to *The Fate of Place*, Casey's study of the progress and shift of Aristotelian place as it is supplanted by concepts of space developed by Kant and later modern philosophers, Casey suggests that, '[w]hereas for Aristotle sensible things are located squarely in places, for Kant places themselves are located in space as parts of it.'¹¹⁰ Malpas and Thiel refer to the idea of the boundary, partly referring to Casey. In Aristotelian terms, Casey argues that place is bounded, limited and divided, ultimately creating a line that marks and separates two places:

Even if it is composed of points, a boundary must be at the very least linear in character if it is to function in this simultaneously en-closing and closing off manner: hence its affinity with the idea of a "borderline".¹¹¹

¹⁰⁶ See Malpas and Thiel, 'Kant's Geography of Reason' in *Reading Kant's Geography*, p. 198.

¹⁰⁷ Quoted in Ibid. p. 197–98. This is from, Immanuel Kant *Prolegomena to Any Future Metaphysics: With Selections from the Critique of Reason*, trans. Gary Hatfield in (Cambridge: Cambridge University Press, 1997), pp.106, and discussed in Ch. 1 of this thesis, note 121.

¹⁰⁸ Kant, *Prolegomena to Any Future Metaphysics*, p. 108.

¹⁰⁹ Malpas and Thiel, 'Kant's Geography of Reason', in *Reading Kant's Geography*, p. 198.

¹¹⁰ Casey, *The Fate of Place*, p. 193.

¹¹¹ Ibid. p. 63.

The linear nature of the boundary as ‘borderline’ or margin between two states, whether as geometry, space, location, or site further suggests that it is possible to move between these two separately defined spaces, and that the boundary creates the limit that defines, and also defines the separation between them.

In *Michael Kohlhaas* the encounter with the ‘borderline’ causes the chain of events that lead to both external and internal collapse, of someone who was ‘one of the most honourable as well as one of the most terrible men of his age’.¹¹² While these may seem to be contradictory forces in the character of Kohlhaas, Kleist demonstrates that his desperate bid for justice warped him into something ‘terrible.’ The moment the initial collapse of justice occurs at the new tollgate, when Kohlhaas’s ‘fair-mindedness’¹¹³ is tested as he is told he must not only pay a toll but needs a state permit as well, and he starts to be ‘angered by these illegal and extortionate demands’,¹¹⁴ his sense of moral outrage escalates and his judgement is impaired by his anger. As surety for the permit he leaves two of his horses and one of his grooms while he completes his business in Leipzig and Dresden. Kohlhaas says he has ‘crossed the border seventeen times in his life without such a document’.¹¹⁵ At the outset, Kleist closely maps the place where the events occur – between Brandenburg and Saxony, on the river Elbe near a large castle on the Saxon side of the border – making it clear that the subsequent predicament for Kohlhaas is one determined by territory, but that at the same time he has equal entitlement to be in both states. In Dresden, Kohlhaas finds that the permit is unnecessary and that he was the victim of an opportunistic conspiracy committed by the tollgate keeper and the castle warden, but one endorsed by the new Junker (squire) of the castle, Wenzel von Tronka. He returns to find that his groom has been assaulted and thrown out of the castle and his horses malnourished. Kohlhaas seeks redress in the law, demanding punishment of the Junker, his horses returned in their former condition, and compensation for himself and his groom. The court dismisses his case, as the Junker’s influence extends through aristocratic family connections and his attempts to seek justice are thwarted: consequently ‘[...] his sense of justice made him a robber and a murderer’.¹¹⁶

The scale of Kohlhaas’s redress is disproportionate to the humiliations inflicted on him at the tollgate, the injury to his groom and the poor condition of his horses; his ‘road to hell was paved with good intentions’.¹¹⁷ As the story

¹¹² Kleist, *The Marquise of O– and Other Stories*, p. 114.

¹¹³ Ibid. p. 114.

¹¹⁴ Ibid. p. 116.

¹¹⁵ Ibid. p. 115.

¹¹⁶ Ibid. p. 114.

¹¹⁷ Largely attributed to St. Bernard of Clairvaux, *Apothegm*, c.1150.

progresses, Kleist's deliberation asks at which point could Kohlhaas have given up his pursuit of a fair or reasonable outcome to his troubles. *Michael Kohlhaas* can be analysed in spatial and architectural terms: the collapse or ruinous fate for Kohlhaas happens in the moment when place – the borders between two states, here Brandenburg and Saxony – becomes territorialized, and therefore as terrain that is divided it is potentially a site for dispute and conflict. This terrain is a horizontal plane mapped by Kohlhaas's attempts to move freely across it. The two states are differentiated by their relationship and interpretation of the law: Brandenburg is apparently more fair and reasonable towards its subjects, though the von Tronka family's influence is shown to stretch into Brandenburg as well, whereas Saxony is rife with corruption, such as that perpetuated by the von Tronkas. In this instance Kleist demonstrates how the law maps the territory of the two states in the story, which corresponds to the advent of jurisdiction over territory and how this was variously interpreted, both historically in the sixteenth century, and in his contemporary setting of the eighteenth and early nineteenth centuries. Elden notes, '[...] territory is a word, a concept, and a practice, and the relation between these can only be grasped historically.'¹¹⁸ In the novella *Michael Kohlhaas* there are two histories of territory implied: firstly that of the sixteenth century in Luther's interpretation; and secondly that of the seventeenth and eighteenth centuries, which appeared in the political and historical writings of Leibniz, who stated:

Territory is a name common to a *civitas* or a dominion or a tract of land [*terrae tractui*]. But in addition to its fundamental meaning, it also expresses the aggregate of laws and rights, [...] territory signifies the whole of laws and rights which can come to obtain in an inhabited portion of the earth.¹¹⁹

Thus for Leibniz the laws over the territory conferred rights to those inhabiting that space. And he further explicates this: 'Hence there arises what the German jurists call territorial superiority [*Superioritatem territorialem* – i.e., *Landeshoheit*] or the high right of territory [*sublime territorii jus*].'¹²⁰ For Leibniz territory creates a momentum of its own, that its very existence determines its rights. Leibniz adds:

I call jurisdiction the right of deciding cases or of handing down judgements and of coercing obstinate private persons. I say that this right of coercing (which the ancient jurists called *Imperium*) lies in being able, when necessary, to use force on stubborn people.¹²¹

¹¹⁸ Elden, *The Birth of Territory*, p. 7.

¹¹⁹ Quoted in Ibid. p. 318. See also pp. 315–21.

¹²⁰ Ibid.

¹²¹ Ibid.

These comments seem to tell the story of Michael Kohlhaas, who was that ‘obstinate private person’ described by Leibniz and who became the subject of ‘force’ by the law. More particularly, this demonstrates the way in which Kleist’s story is located within the histories and elaboration of the meanings and laws of territory in Germany from Luther to Leibniz.

The horizontal territory is intersected by two significant vertical, architectural elements – the gate and the castle. The first architectural construction is the tollgate: it is a border, a threshold, a liminal space, and recalls Kleist’s image of the imminently collapsing arch. At the very moment that Kohlhaas crosses the threshold, or passes through the arch, or in this instance, the tollgate, a series of collapses occur and he is rendered powerless simply by both his need to cross the border and his belief that he is entitled to do so, yet the moment that he does so, his fate is sealed. Kohlhaas’s traversal of the space of this threshold sets in motion the calamitous events of the story. The question arises here, in relation to Kleist’s analogy as to what the mechanisms are that keep the arch or, in this instance, the tollgate standing. There is no reason why the tollgate should continue to stand between these two states, as Kohlhaas quickly proves that both the toll and the permit have no validity in law. But, further, it is established that it is the arbitrariness of the law conferred as aristocratic privilege that keeps it in place. At what point, as he crosses this threshold, is Kohlhaas beyond the border between the two states and is in one place or another? Faced with the dilemma he encounters, was there a point where he could have turned back and given up his attempt of continuing further into Saxony and sold his horses elsewhere? It appears not – Kohlhaas is unable to concede, because it is established that he is equally a subject of both Brandenburg and Saxony, and that he vowed to see that justice was done.

Kohlhaas is one who can legitimately live in two states, is entitled to freely cross the borders between them. As such, Kohlhaas has no deep attachment to one place, nor any sentimental or heartfelt sense of home, even though the village of Kohlhaasenbrück, ‘still bears his name’¹²² suggesting the continuity of his family in the region. In the novella, the village was likely so-named because it was where the story’s originating figure, Hans Kohlhase, was executed, thus adding a further layer of doom. Kohlhaas journeys from place to place initially in his pursuit of justice, and when that fails, as vengeance. During the course of the narrative Kohlhaas covers considerable distances, through traceable places which are the mapped co-ordinates of the territory of the two states; he goes to Berlin, then capital of the Kingdom of Prussia; in the state of Brandenburg he travels to the city of the same name, and also to Potsdam and Mühlberg; in the state of Saxony to Leipzig, Wittenberg and to Dresden, its capital.

Unsurprisingly, these journeys in the eastern states of Germany were familiar to

¹²² Kleist, *The Marquise of O– and Other Stories*, p. 114.

Kleist, (see Appendix) and were just some of the places he repeatedly visited in his own restless and troubled wanderings.

2. The collapse of certainty: jurisdiction and geography

In the course of the story Kleist questions the relation of the individual to the law: What should a reasonable man do to achieve a fair result? Are Kohlhaas's actions ethical? The second significant architectural motif, after the tollgate, is that of the castle – this structure is equated with power. The scale of this 'magnificent castle on Saxon soil'¹²³ and the dominance of this implacable edifice becomes an unyielding agency of the aristocracy, and its nepotistic relationship with the state. The castle is the seat of the von Tronkas and the site of their despotism: they exert influence over the court in Dresden where Kohlhaas took his petition for restitution and compensation and where '[...] in consequence from a higher level, had dismissed his case out of hand'.¹²⁴ When Kohlhaas encounters the tollgate, he queries its authority and is told that it is 'State privilege, conferred on Junker Wenzel von Tronka',¹²⁵ who inherited the title on the death of his father. A change of Junker means a change of circumstances for those within the proximity of the castle. For Kleist, the castle represents the power aristocratic authority can exert on the state, acting in such manner because it does not expect its autocratic actions to be scrutinized, since those actions are enclosed and hidden in the fabric of the castle. The story opens with two breaches of the law: firstly the illegal construction of the tollgate and the requisition of a permit to cross the border; and secondly the assault on his groom and the poor condition in which Kohlhaas finds his horses when he returns to claim them. The failure to achieve a reasonable resolution to a straightforward claim through the agency of the law created a gulf between the citizen and the law. The themes of the impenetrability of agencies of the state identified as law, and as power over individual liberty, determine the eponymous character's fateful actions in *Michael Kohlhaas*. They were later important to Kafka, and this novella¹²⁶ had a bearing on two of his novels, principally *Der Prozeß* (*The Trial*) but also *Das Schloss* (*The Castle*), where architecture embodies the state.

This is the central drama and drive of the narrative where Kohlhaas's obsession

¹²³ Kleist, *The Marquise of O– and Other Stories*, p.114.

¹²⁴ Ibid. p. 127.

¹²⁵ Ibid. pp. 114–15.

¹²⁶ Kafka preferred the 1808 version where the ending led Kohlhaas towards a legal redress to the initial wrongs at the beginning of the story, but were not resolved before his execution. In the 1810 ending, legal redress was achieved, and power shifted to the drama of Elector of Saxony's abject desperation about the gypsy's prophesy in Kohlhaas's possession. Kafka's preferred ending parallels the lack of resolution before the law for Josef K. in *Der Prozeß* (*The Trial*). See Letter 9–10 February 1913, in Franz Kafka, *Letters to Felice*, p.187.

with achieving justice impels him towards its final and bitter end, binding it to the axiom 'For the sense of justice outweighs all else',¹²⁷ yet here it not only outweighs, but tips all other balances. Kohlhaas is unable to abandon his cause:

[...] it was now his duty to the world at large to exert all his powers in securing redress for the wrongs already perpetuated and protection for his fellow citizens against such wrongs in the future.¹²⁸

In this moment the search for justice becomes a vainglorious one: Kohlhaas believes he is impelled to act for the greater good. Kohlhaas is not naïve or unworldly – he is 'well schooled in the world's ways',¹²⁹ and acts from the perspective of the urbane and fair-minded citizen. Following his experience at the border, Kohlhaas attempts to unravel the intricate connections of the nobility in order to obtain justice. He encounters the governor of Brandenburg, to whom he tells the story of his injustice and the injury to his groom and horses, and who agrees to help him. The chain of petition moves slowly from the governor of Brandenburg to the Elector, who then refers it to the Elector of Saxony. Eventually Kohlhaas is informed that he is considered 'a vexatious litigant [... and] that the State Chancellery wished in any event not to be troubled with any further contentions and complaints of this sort.'¹³⁰ Kohlhaas is deeply insulted, the letter makes him 'foam with rage',¹³¹ and thus begins his revenge. He (temporarily) disposes of his properties in Brandenburg and Saxony, and tries to persuade his wife to go to her aunt's in Schwerin, in the state of Mecklenberg, exclaiming that he is jettisoning the property because, 'I do not wish to remain in a country where I and my rights are not defended.'¹³² A crucial point is established – Kohlhaas believes himself to be a citizen rather than a subject, and being a person with rights that should be protected motivates his actions. Yet, in the course of his retribution there is little appreciation that he accepts and understands himself to be under the jurisdiction of the law of territory that Leibniz identified. At the same time there is a sense of modernity in this perception, which echoes the development of the rise of the concept and legal determination of the citizen occurring in many of the social upheavals of the late eighteenth century.

The pursuit of justice continues on a trajectory of disaster, a juggernaut that cannot be turned or stopped. Kohlhaas's wife attempts to present his petition in Berlin; however she is mortally injured trying to reach the Elector of Brandenburg. At his wife's lavish funeral, Kohlhaas receives news that his

¹²⁷ Maass, *Kleist: a biography*, p. 108. This was the axiom underpinning his play *Die Familie Schroffenstein*.

¹²⁸ Kleist, *The Marquise of O- and Other Stories*, p. 121.

¹²⁹ Ibid. p. 131.

¹³⁰ Ibid. p. 130.

¹³¹ Ibid.

¹³² Ibid. p. 134.

petition to the Elector has failed. Kohlhaas vows revenge, issuing his own legal edict ‘ “by virtue of the authority inborn in him” ’¹³³ intended to legitimize his vengeance. He sets fire and razes the castle. Driven by his desire to find the Junker, who had swiftly disappeared, he encounters his relative, Junker Hans von Tronka and ‘hurled him into a corner, dashing his brains out against the stones’,¹³⁴ which parallels the death of the baby in the cathedral in *Das Erdbeben in Chili* and the depiction of murder absorbed into the architecture that had oppressed the characters. The castle burns all night:

When morning came the entire castle had been burnt out, leaving nothing but walls and no one but Kohlhaas and his seven men in it. [...] Hard as it was for him, he had to admit that the expedition to the castle had failed [...]¹³⁵

This raid demonstrates collapse: not just of the castle itself, but also the righteous vengeance of Kohlhaas as a collapse of judgement, which led him to murder the wrong person. However, this failure leads him to declare war on Junker Wenzel von Tronka, and into ‘the hellish torment of unsatisfied revenge’.¹³⁶ He gathers many followers, especially among the servants from the castle and the disgruntled populace, and continues burning, pillaging, sacking towns and villages, frequently crossing the border between the two states. Kohlhaas repeatedly returns to the city of Wittenberg and after it had been burned a third time the citizens demonstrate their anger against the state blaming their leaders for their inability to regulate members of their own ruling class. The Junker Wenzel von Tronka is paraded through the ‘wreckage of the town’ and as the ‘bane of Wittenberg and the ruin of Saxony’.¹³⁷

In a short time the reasonable and prosperous horse dealer has become a man of war: wearing armour, bearing a sword, amassing followers and gaining a ‘most formidable military reputation’.¹³⁸ Kleist’s inquiry in *Michael Kohlhaas* is that, having embarked on war in order to achieve justice, if justice does not prevail, where can he go to bring about an end to it? How is peace brought about? The novella becomes an exploration of the relationship between the citizen and the state, or more particularly the two states of Saxony and Brandenburg, and how they interpret their laws differently, since one is despotic and the other more enlightened. Kant explored the themes of the restitution of peace and of the relationship of the individual to the law, republicanism and the shifting perceptions of the role of the state in his political writings

¹³³ Ibid. p. 137.

¹³⁴ Ibid. p. 139.

¹³⁵ Ibid. p. 140.

¹³⁶ Ibid. p. 142.

¹³⁷ Ibid. p. 146.

¹³⁸ Ibid. p. 144.

produced in the 1790s. Kant sets out to determine the principles that create the conditions of peace in the ‘First Definitive Article of a Perpetual Peace: The Civil Constitution of Every State shall be Republican’ 1795, where he states:

A republican constitution is founded upon three principles: firstly, the principle of *freedom* for all members of a society (as men); secondly, the principle of the *dependence* of everyone upon a single common legislation (as subjects); and thirdly, the principle of legal *equality* for everyone (as citizens). [...] it only remains to ask whether it is the only constitution which can lead to a perpetual peace.¹³⁹

He further clarifies that ‘*Republicanism* is that political principle whereby the executive power (the government) is separated from the legislative power.’¹⁴⁰ Throughout this piece Kant searches for an articulation of the conditions that will ensure peace. However, even at the time, these writings came under scrutiny and criticism, for example by Friedrich Schlegel, who offered a different and more sceptical view of republicanism in response to Kant’s:

The *minimum* of civil freedom is contained in the Kantian definition. The *medium* of civil freedom is the right to obey no external laws other than those which the (represented) majority of the nation has really willed and the (supposed) universality of the nation could will. [...] what Kant defines as external legal equality in general is only the minimum in the infinite progression to the unattainable idea of *political equality*.¹⁴¹

The merits of each position are of less concern here than the attention of thought and argument directed to the politics of the role of the citizen in a republic in civil society. Written, published and presented during an on-going war, underlying both Kant’s and Schlegel’s perspectives is a sense that at the end of it all society will be differently constituted. Even though Kant is searching for ways of making peace viable, he nevertheless acknowledges the conditions that can produce war: ‘But under a constitution where the subject is not a citizen, and which is therefore not republican, it is the simplest thing in the world to go to war.’¹⁴² These are the conditions that Kohlhaas finds himself in: that his sense of himself as a citizen of Saxony has been taken away when he attempts to freely cross the border via the threshold of the tollgate, and consequently he embarks on war.

¹³⁹ Immanuel Kant, *Political Writings*, ed. by Hans Reiss, trans. by H.B. Nisbet (Cambridge: Cambridge University Press, 2004), pp. 99–100.

¹⁴⁰ Ibid, p. 101.

¹⁴¹ Friedrich Schlegel ‘Essay on the Concept of Republicanism occasioned by the Kantian tract “Perpetual Peace”’, in Frederick Beiser, *The Early Political Writings of the German Romantics* (Cambridge: Cambridge University Press, 1996), p. 97.

¹⁴² Kant, *Political Writings*, p. 100.

The vengeance that Kohlhaas wreaks over the state of Saxony is spatial, geographical and territorial. The key point about territory is that it concerns power, Foucault articulates this: ‘*Territory* is no doubt a geographical notion, but it’s first of all a juridico-political one: the area controlled by a certain kind of power.’¹⁴³ Foucault further questions his own perspective on territory in relation to space and geography and asks: ‘But can you be sure that I am borrowing these terms from geography rather than exactly where geography itself found them?’¹⁴⁴ He answers himself quoting from previous writing:

The point that needs to be emphasized here is that certain spatial metaphors are equally geographical and strategic, which is only natural since geography grew up in the shadow of the military. A circulation of notions can be observed between geographical and strategic discourses.¹⁴⁵

Foucault extrapolates this in the argument that power is exerted over territory and that power is demonstrated and enacted through war conducted over the space of that territory. Edward Said was critical of Foucault’s lack of engagement in relation to the politics of territory; for Said the politics of geographical history and experience were clear: ‘Just as none of us is outside or beyond geography, none of us is completely free from the struggle over geography.’¹⁴⁶ In *Society Must be Defended*, Foucault discusses war as an outcome of the exercise of power over territory, as philosophical and judicial discourse:

[...] unlike the philosophico-juridical discourse organized around the problem of sovereignty and the law, the discourse that deciphers war’s permanent presence within society is essentially a historico-political discourse, a discourse in which truth functions as a weapon to be used for a partisan victory [...]¹⁴⁷

This summary by Foucault was written in 1976 and appeared before Giles Deleuze and Félix Guattari advanced their concept of the ‘war machine’ in *Mille Plateaux* (1980). In this theme of the ‘war machine’, Deleuze and Guattari may have intended to extend and respond to Foucault’s position on the concept of war as discourse over territory. Deleuze and Guattari connect

¹⁴³ Jeremy W. Crampton and Stuart Elden, eds., *Space, Knowledge and Power: Foucault and Geography* (Aldershot: Ashgate, 2007), p. 176.

¹⁴⁴ Ibid. p. 177.

¹⁴⁵ Ibid.

¹⁴⁶ Edward Said, *Culture and Imperialism* (London: Vintage, 1994), p. 6.

¹⁴⁷ Michel Foucault, ‘Course Summary’, in “*Society Must be Defended*”: *Lectures at the Collège de France 1975–76*, trans. by David Macey (London: Penguin Books, 2004), p. 270.

the war machine to ideas of ‘deterritorialization’,¹⁴⁸ as it is more concerned with ideas of dematerialization in relation to the formations of the state apparatus than it is about questions of space and the spatial. Deleuze and Guattari’s ‘war machine’ is a philosophical-poetic concerning the sweeping forces of change, but one that is in itself de-located – the war-machine has proximity but not location:

It is necessary to reach the point of conceiving the war machine as itself a pure form of exteriority, whereas the State apparatus constitutes the form of interiority we habitually take as a model [...]¹⁴⁹

They make particular reference to Kleist and his writing as an exemplar of this, and suggest that Kleist is the first to invent this kind of exteriority in literature:

Throughout his work, Kleist celebrates the war machine, setting it against the State apparatus in a struggle that is lost from the start. [...] As for Kohlhaas, his war machine can no longer be anything more than banditry.¹⁵⁰

However, there may be a slippage between war time and ‘war machine’. In reality, for Kleist there was no time or life outside of war – from his entry into the army in 1792 at the age of fifteen until his death in 1811, war was the only state of existence, always present or imminent.

Deleuze and Guattari define the war machine as exteriority, as action, force and movement. Kleist’s writing does have a relentless forward movement, but this is different from Deleuze and Guattari’s idea of exteriority. Kleist’s exteriority is exterior for no other reason than that it is not interior: that is specifically not interior, not subjective, not the private space of the unuttered thought, not determined by ontological states creating an acceptance of the concept by defining what it is not; where exteriority may be seen in part as the application of Kantian uncertainty. As a result, this model of Deleuze and Guattari’s ‘war machine,’ although it seems a persuasive metaphor, quickly reaches its limit and becomes a tautological construction. Even though Kleist’s writing does have an inexorable movement to a bitter end, ultimately this is different from Deleuze and Guattari’s idea of exteriority. For Kleist this not so much exteriority as a demonstration of Kantian uncertainty, which in and

¹⁴⁸ See: Giles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. and foreword by Brian Massumi (Minneapolis: University of Minnesota Press, 1994), pp.140n and ‘Of the Refrain’, pp. 311–50. The concept ‘deterritorialization’ is developed in relation to the ‘abstract machine’ that is the structure of language; advanced with reference to Noam Chomsky and Michel Foucault.

¹⁴⁹ Ibid. p. 354.

¹⁵⁰ Ibid. pp. 355–56.

of itself is not specifically exterior. While it is true that Kleist's writing has an exteriority that Deleuze and Guattari identify, this suggestion is not the whole story of Kleist's writing, since what is implied by this comment is that there is no interiority. The interior dimension of Kleist's writing is constructed through directing the reader to the application of philosophical propositions. Kleist's work is varied but the repeating motif is uncertainty in an unpredictable world, and the interior void of unknowability between people and knowledge (consciousness and unselfconsciousness).

3. Law, society and the citizen

The collapse of justice in *Michael Kohlhaas* is represented by the violence of his retribution: he becomes an outlaw and a murderer leading an insurrection because he was denied justice. The loss of certainty in justice meant that he had nowhere to turn but to insurgence. However, Kohlhaas's war is only a short part of the narrative. Georg Lukács identifies the social bind of the 'insoluble dialectic of justice'¹⁵¹ faced by Kohlhaas:

These contradictions culminate in the realization that it is typical of class society that the individual must either submit unconditionally to the injustice and lawlessness of the ruling classes or is forced to become a criminal in the eyes of society, indeed in terms of his or her own morality.¹⁵²

It is the settlement of hostilities into a strange, uneasy and ultimately uncertain armistice that takes over for the remaining two thirds of the story as the wheels of justice in Saxony and Brandenburg turn slowly. This entails the machinations of the two states in their attempt to settle peace and decide on punishment for Kohlhaas. The representation of the relationship of the individual to the state becomes the uncertain and complex resolution of the story. It was previously established that Kohlhaas and his wife were Lutheran, and that Luther is a most 'venerable' figure, a man of moral judgement and insight. Luther (1483–1546) is an interesting historical choice for Kleist to include, not only because he was a contemporary of the historical Kohlhaas,

¹⁵¹ Georg Lukács, 'The Tragedy of Heinrich von Kleist', in *German Realists in the Nineteenth Century*, trans. Jeremy Gaines and Paul Keast, ed. and introduction by Rodney Livingstone (London: Libris, 1993), p. 40. In his 1936 Marxist analysis of Kleist, Lukács is largely critical of Kleist with the exception of *Michael Kohlhaas* and *Die zebrochne Krug*, yet describes him as the 'greatest writer of German Romanticism', p. 3. Lukács sees a contradiction between Kleist's modernism and his 'conservative *Junkersim*' and that 'he remained an officer of the Old Prussian school', p. 20. An analysis of class in Kleist is viable, but outside this study.

¹⁵² Ibid.

but also because Luther was deeply connected to the state of Saxony.¹⁵³

The intervention by Luther as the most respected and revered person of his day is also that of an incorruptible figure who does not represent any side in the dispute other than the rightness of the law. However, in the face of Luther's reasoning and the temporary amnesty he arranged,¹⁵⁴ Kohlhaas maintains an intransigent belief in justice as a certainty. Luther and Kohlhaas enter into a debate about justice and the role of the state, discussing his case and attempting to find a resolution, though not without argument. Luther sets out to regard Kohlhaas as an ethical man and issues the proclamation in the hope of '[...] inducing Kohlhaas to return within the confines of ordered human society; and in the belief that there was an element of integrity in the incendiary's heart [...]'.¹⁵⁵ Upon reading Luther's proclamation 'accusing him of injustice'¹⁵⁶ Kohlhaas clandestinely meets him, telling him this would be true and his war would be a crime if 'society had not cast me out'.¹⁵⁷ Luther reacts with alarm, asking: 'Has there ever, so long as states have existed, been a case of anyone, no matter who, becoming an outcast from society?'¹⁵⁸ When Luther questions whether it is indeed possible for *anyone* to be outside of the state, he is suggesting a construction of the state as both territory and concept. Kohlhaas answers, 'I call that man an outcast,' [...] "who is denied the protection of the law!"¹⁵⁹ In short, Luther and Kohlhaas ask what exactly is represented by the state and what is beyond the state. Kant outlines the concept of the outlaw as:

For if the subject [...] were then to offer resistance to the authority currently in power, he might by the laws of this authority (i.e. with complete justice) be punished, eliminated or banished as an outlaw (*exlex*).¹⁶⁰

Kant suggests here a sense that, to be an outlaw is to be beyond the jurisdiction of the law, as though there were a boundary of inside and outside the law as a spatial determination. Kohlhaas returns to the original moment when justice broke down crossing the tollgate, as Lukás notes: 'Kohlhaas is a normal person

¹⁵³ Luther studied and later taught at the University of Wittenberg. Posting his *Ninety-five Theses* on the door of All Saints Church in Wittenberg in 1517 was the beginning of the Reformation. Pope Leo X excommunicated Luther in 1521, and he was regarded by the papacy as an outlaw. While Luther was not inherently radical, he was nevertheless an indirect supporter of the Peasants War of 1524 to 1525, which may have an additional bearing on the story of Kohlhaas's insurrection.

¹⁵⁴ Kleist, *The Marquise of O— and Other Stories*, p.154.

¹⁵⁵ Ibid. p. 149.

¹⁵⁶ Ibid. p. 151.

¹⁵⁷ Ibid. p. 152.

¹⁵⁸ Ibid. p. 152.

¹⁵⁹ Ibid. p. 152.

¹⁶⁰ Kant, *Political Writings*, p. 143.

who makes very modest, very moderate demands of society',¹⁶¹ even despite the disproportionate scale of what came after. The loss of certainty Kohlhaas suffers is the loss of truth, but the question Kleist raises here is: can a state deliver justice that is based on a notion of truth that is absolute? Early on it is clarified that Kohlhaas's 'experience had already given him a realistic sense of the imperfection inherent in the order of the world'¹⁶² demonstrating that he is not overly idealistic and has realistic expectations of what the world can offer.

Underlying the historical elements of the sixteenth century setting of Kleist's story were the explorations into the relationship of the individual to the law and to the state that arose during the course of the seventeenth and eighteenth centuries. Kant followed the political study of *Perpetual Peace* with *The Metaphysics of Morals* in 1796, where he outlined the relationship of states to each other, and of individuals to the law and to the state. Curiously, Kant does not refer to Leibniz's political writing on the state as jurisdiction over territory. Kant's theory of right is less spatialized than Leibniz's study of territory and the law, but nevertheless in terms of Kleist's investigation of an individual's search for justice, throughout the novella there are echoes of Kant's thoughts on right. For Kant, 'a state (*civitas*) is a union of an aggregate of men under rightful laws',¹⁶³ and he further adds:

The members of such a society (*societas civilis*) or state who unite for the purpose of legislating are known as *citizens* (*cives*), and the three rightful attributes which are inseparable from the nature of the citizen as such are as follows: firstly, lawful *freedom* to obey no law other than that to which he has given his consent; secondly, civil *equality* in recognising no-one among the people as superior to himself [...] and thirdly, the attribute of civil *independence* which allows him to owe his existence and sustenance not to the arbitrary will of anyone else among the people, but purely to his own rights and powers as member of the commonwealth [...] ¹⁶⁴

Kant identifies the layers of the modern state and the citizens within in it who know that they have entitlements under the law. Following on from the earlier *Perpetual Peace*, in *The Metaphysics of Morals* Kant devotes a good deal of space in this essay to the things that can go wrong or fall apart with ideas of right, the individual and the state. Consequently, in the context of this work Kant is concerned with an uncertain or unsettled political situation, when he argues:

¹⁶¹ Lukás, *German Realists in the Nineteenth Century*, p. 40.

¹⁶² Ibid. p. 121.

¹⁶³ Kant, *Political Writings*, p.138.

¹⁶⁴ Ibid. p. 139.

[...] the *a priori* rational idea of a non-lawful state will still tell us that before a public and legal state is established, individual men, peoples and states can never be secure against acts of violence from one another, since each will have his own right to do *what seems right and good to him*, independently of the opinion of others.¹⁶⁵

Kant further clarifies that:

[...] it is a state devoid of justice (*status iustitia vacuus*), for if a dispute over rights (*ius controversum*) occurs in it, there is no competent judge to pronounce legally valid decisions.¹⁶⁶

This is the situation represented and explored in the novella, where Kohlhaas has lost his citizenship and freedom because of a despotic and arbitrary law casually constructed for short-term benefit. In the state ‘devoid of justice’ – in this instance, Saxony – the question as to where the ‘legally valid decision’ was is pertinent to Kleist’s inquiry into the collapse of justice. It is clear from the start that the ‘legally valid decision’ collapsed when a charge for passing through the tollgate was imposed, and as a consequence a chain of disastrous events ensued. In the course of the novella Kohlhaas validates his actions by issuing a series of writs styled as his own laws of entitlement. The first writ is entitled ‘Declaration under the Writ of Kohlhaas’,¹⁶⁷ in the second writ, nailed on to a church door, Kohlhaas declares himself ‘[...]“a freeman of the Empire and the world, subject to God alone”.’¹⁶⁸ In issuing these edicts he has forfeited his ability to negotiate, and declares war. However, what kind of man of war is Kohlhaas? He could be considered an honest man waging war against a despotic ruling class, and that because the certainty of citizenship has been removed – the uncertainty explored is the arbitrary variability of interpretations of the law. However, questions concerning the pursuit of justice by an individual such as Kohlhaas return us to Kant’s propositions in the ‘Doctrine of Method’ near the end of the *Critique of Reason*¹⁶⁹ where he asks how the individual subject can both use and reach the limits of reason. In the novella, Kleist explores Kant’s propositions since most of Kohlhaas’s undertakings lie within the questions of what is knowable and how one should act, and it is not until near the end that he realizes that he has completely exhausted all hope. The novella can be effectively scrutinized and analysed in terms of the collapse of certainty as the means of unlocking the dilemma of the initial collapse of justice.

¹⁶⁵ Ibid. p. 137. Kant’s emphasis.

¹⁶⁶ Ibid.

¹⁶⁷ Kleist, *The Marquise of O– and Other Stories*, p. 140.

¹⁶⁸ Ibid. p. 143.

¹⁶⁹ Kant, *Critique of Reason*, p. 677. See Ch. 1, note 127 of this thesis.

Just as with Kleist's letters, and in particular the arch letter, there is a materiality in the production of the documents on which the law is inscribed: petitions, papers, and writs, to the final piece of paper given to Kohlhaas by a gypsy woman. While Mehigan argues that these writs and petitions should be seen as a series of contracts in the legal and social realm,¹⁷⁰ however, it is through the physical, material and even visceral relationship of the documents to place that gives them power and agency in the narrative. This is particularly so with the gypsy's secret prophesy about the fate of the Elector of Saxony's dynasty transferred on to the paper that turns this mysterious document into a talisman of considerable potency. The talisman creates a shift and partial redistribution of power, although of a secretive and supernatural kind, but one that gives final equality to Kohlhaas and at the same time torments the Elector of Saxony, even from beyond Kohlhaas's grave. However, with this curious addendum to the 1810 version of the story, Kleist may be hinting at something else: that is, the invocation of ancient folkloric superstitions or witchcraft as beliefs predating the advent of organised law, which suggests a further collapse of the law of the modern state. Kohlhaas wears the talisman as an amulet and, while it does not protect Kohlhaas from his fate, it protects his own descendants and has the opposite effect on the Elector of Saxony's line. When Kohlhaas swallows the talisman before his execution he literally embodies the power of that magic, and takes the secret to the grave, which drives the Elector of Saxony to collapse in a swoon of apoplexy. The Elector of Saxony suffers the loss of certainty and, along with the reader, will never know what was written in the prophecy. The uneasy ending lies in the collapse of the rationality of the law as it is subsumed by superstition and uncertainty.

In *Michael Kohlhaas* the collapse of justice happens because justice as a whole is made up of smaller parts, like the individual stones of the arch. The seemingly trivial legal claim by one individual – here the restoration of the horses to good health and compensation for his groom's beating – is an exemplar of all justice. Kohlhaas takes the concept of the indivisibility of justice as far as it can possibly and logically go, until it too breaks down into superstition. Consequently, if a citizen is not extended that protection of the law, regardless of the scale of the grievance, then not only justice has collapsed, but the state itself has, since the state is both the embodiment and the means of implementing the law.

Several months after he first read Kant's critical writing, Kleist went to Paris, and wrote to Wilhelmine observing the effect of libraries full of Rousseau, Helvetius

¹⁷⁰ See Mehigan, 'Heinrich von Kleist's Concept of Law, with Special Reference to "Michael Kohlhaas"', in *Heinrich von Kleist: writing after Kant*, pp. 68–83. Mehigan argues that Rousseau's theory of the social contract is of importance to the Kohlhaas story as a 'contractualist discourse', p. 72.

and Voltaire's books wondering what had been achieved by these works, how they had affected the perception of the state, and identifying the problematic relationship between truth and state: 'Does *it* care about *Truth*? The *state*? A state knows no advantage that it cannot reckon in percentages. It wants only to *implement* Truth.'¹⁷¹ In *Michael Kohlhaas*, truth is subsequently implemented; but only in order to expedite matters. Even though Kohlhaas wins his case, it is a pyrrhic victory, since he is sentenced to death because of his actions as a brigand. In the fight for certainty everyone loses – Kohlhaas and his wife lose their lives, and the children have lost their parents; the state loses credibility in the eyes of its subjects just as they are poised to become citizens; and truth loses as it is compromised beyond recognition through the collapse of justice. Ultimately the question is asked as to whether such collapse is irreconcilable.

¹⁷¹ Kleist, *An Abyss Deep Enough*, p. 124.

Part 3

Collapse and the space of the abyss

1. Space and the abyss

In 1802, Kleist ended his relationship with Wilhelmine and declared himself a writer. He dismissively ends their engagement thus:

[...] where now, it matters not whether in pleasure or displeasure, I have committed myself to my writing [...] Dear Girl, write me no more, I have no other wish than very soon to die. H.K.41¹⁷²

In the connection between writing and death, it is possible that this comment – rather than representing a desire to die – suggests that, for Kleist, the moment of becoming a writer is one of collapse. Like the stones of the arch, this collapse is similar to his suggestion that in the arch ‘[...] *all the stones tend to collapse at the same time*’; in this instance, the moment of declaring his commitment to writing is an all-engulfing collapse.

Kleist struggled to find his place in the world. He returns to the refrain of uncertainty:

Ah, that we should require a lifetime to learn how to live, and only in death know what Heaven intended for us! – Where will this wavering spirit of mine lead me, striving for everything, and discarding it indifferently as soon as it is touched?¹⁷³

Throughout the letters, and inflected in the prose and plays, there is a constant iteration of Kleist’s desire to find a way to live in the world, but this is always doomed to end in collapse. This insight by Kleist as the metaphor of the ‘wavering spirit’ (*der schwankende Geist*) is a compelling and poetic one, revealing his perpetual uncertainty, his vacillations, that his equivocal relationship with the world meant that at any time, collapse was imminent. Over the course of the following nine years until his death, Kleist’s existence was precarious, intense and in a state of perpetual movement,¹⁷⁴ of wandering and traversing Europe in the restless hope of finding a place in the world, while at the same time producing a prodigious amount of writing in the form of novels, novellas, stories, plays, anecdotes, aphorisms and reviews.

¹⁷² Kleist, *An Abyss Deep Enough* p. 148

¹⁷³ Ibid. p. 121

¹⁷⁴ See Appendix. The extant 228 of Kleist’s letters that were collected and published give a good indication of his constant and restless movement.

The fate of the wanderer is portrayed in Nietzsche's rhyming prelude to *The Gay Science*:

27. The Wanderer

'The path ends! Abyss and deadly science loom!
You wanted this! Your will strayed to its doom!
Now wanderer, stand! Be keen and cool as frost!
Believe in danger now and you – are lost.'¹⁷⁵

In Nietzsche's verse there is a presentiment of death emphasized through the end of the path, the 'abyss', the sense of 'doom' and of being 'lost'. Reading this in connection to Kleist, Nietzsche's lines are redolent of Kleist's circumstances – his fascination with the abyss, the problem of 'deadly science'. This strikes against Nietzsche's forcefully direct address to someone unnamed: '*You* wanted this!'; while '*Your* will strayed to its doom!' and '*you* – are lost', read in the context of Kleist's wandering and death, are also striking reminders that Kleist was the author of the majority of the various forms of collapse that happened to him. This poem echoes Kleist's own state of being, whereby the wanderer is always situated on an uncertain edge looking beyond, and where wandering may reach an ultimate embodiment of loss and collapse. Kleist had written to Wilhelmine, when he first felt compelled to travel following the turmoil of reading Kant's critical writing:

[...] now I seem to be bound on a journey to foreign parts, without point or purpose, without any idea of where it will lead me. At times on this journey I have felt as though I were heading straight for my abyss – ¹⁷⁶

The idea of travelling without 'point or purpose' seems to characterize of all of Kleist's travels. The recurrent motif and concept of abyss in Kleist's writing is one in which the conceptual and material nature of the geology and geography of the abyss combine and construct an image that spatializes death, but the abyss is also collapse as geology, as geography, as space, and as an aesthetic.

Considering this suggestion of Kant's critical thinking in the light of geography, perhaps Kleist's intention to deal with the breakdown of his previously held convictions by 'walking and thinking' is less far-fetched a plan than it may otherwise seem. Given the lack of a certain destination, Kleist's travels become more abstract, so that space is more important than place. The abyss is personalized as '*my* abyss'; it is not clear if this is where Kleist believes he is heading as a collapse, or as a kind of personal terror or negation, but

¹⁷⁵ Friedrich Nietzsche, *The Gay Science*, trans. Adrian del Caro (Cambridge: Cambridge University Press, 2001), p. 16.

¹⁷⁶ Kleist, *An Abyss Deep Enough*, p. 113.

nevertheless this implies that he will somehow be engulfed or sucked into the space of the abyss, that it is a vortex from which he cannot escape, a collapse. And as he describes it as ‘*my* abyss’ he further suggests that the abyss needs someone to contemplate it, that it is a relational space. But how is the abyss identified? The abyss is defined by the geography of the features around it and as a spatial poetics. The abyss is a recurring motif in Kleist’s writing: it is a void observed, experienced and imagined as spatialized collapse. Yet, the abyss is also material, geological and a feature of topography. What is the difference between *an* abyss and *the* abyss? The former suggests a place, a bounded interior space, a geographically or geologically determined formation. And the latter suggests an aesthetic, an internal construction, a space of imagining, of territorialized fear, an engulfing unknown. Is *the* abyss situated? How big is *the* abyss? Is *the* abyss always uncertain? Is *the* abyss knowable? These questions might be reduced to one: what constitutes the limit in relation to *the* abyss? It is useful to return to Kant’s conclusion to the *Prolegomena to Any Future Metaphysics*, where he comments that, ‘limits [...] are mere negations that affect a magnitude insofar as it does not possess absolute completeness’.¹⁷⁷ Therefore, if *the* abyss is taken to be space, then the way in which the limits [*Schranken*] can be ignored or overlooked does not mean that they are absent, but rather that, as limits, they not only contain ‘negations’ but suggest that *the* abyss itself is a negation, and as such *the* abyss suggests a sense of nothingness. This may be because *the* abyss evokes a particular quality of space: a fearful maw into which something or someone could disappear (or collapse).

Further, as with the previous discussion on the geometry of the arch, and returning to Casey’s observations in ‘From Void to Vessel’, he suggests that the void is both spatial and temporal:

Void, then exists between place and time: as if to say that to get out of place is to get into the void and to get into time is to get out of the void. Time is therefore one way of avoiding, indeed to *devoiding* the void – emptying its emptiness by introducing measured cadences and reliable rhythms into its abyss.¹⁷⁸

This suggests that the abyss is spatial, and throughout Casey’s discussion of the void there is no further elaboration of what a concept of abyss may be. For Casey, the abyss has a hollowness and resonance, but he does not identify this as space, while the ‘[...] void *were it to exist, would be place-like*’.¹⁷⁹ However, this place-likeness begins to create place because the void seems to *be* something. Though this may be inherent in the meaning of the Greek

¹⁷⁷ Kant, *Prolegomena to Any Future Metaphysics*, p. 106, [4.352].

¹⁷⁸ Casey, *The Fate of Place*, p. 67. Casey’s emphasis.

¹⁷⁹ Ibid. p. 67

word itself as a bottomless chasm and ‘primal chaos’¹⁸⁰ making the abyss incalculable. Yet, the idea of abyss raises questions concerning where it begins and ends, and returns to Casey’s exploration into the distinction between boundary and limit.¹⁸¹ Casey suggests that ‘[f]or Aristotle, the limit is found within place, indeed as part of place itself’,¹⁸² but if this is considered with reference to *the* abyss, what actually ‘does the limiting’?¹⁸³ If the boundary is ‘exterior to something’,¹⁸⁴ what is the ‘something’? In *the* abyss there is an implied limit, but not a defined boundary, or an edge that contains *the* abyss. The boundary of *the* abyss is unsaid, but is not absent. Whereas, *an* abyss is located, material and geographic and the ‘boundary [...] enclosing it’¹⁸⁵ is geological, it is an edge, even if it is uncertain and subject to change.

If the space of *the* abyss as a philosophical and spatially poetic concept is considered as the most unknowable of spaces, then it inevitably becomes associative with the concept of death. Kleist had a fascination with death; he spoke of his own abyss as ‘my abyss’, elucidating that the abyss was both an internal and external space always waiting to engulf him, and that his relationship to death was solipsistic.

2. Abyss and death

Kleist commented on death with considerable intensity in his letters; however, despite this, it did not necessarily suggest that his death by suicide would inevitably follow, but rather that his fascination with death as chronic uncertainty should perhaps be seen in the context of the early loss of his parents, and against a background of a war-ravaged Europe, where young men faced death in battle. Lukács notes that, ‘For Kleist and for the people Kleist created, death is an omnipresent abyss that is both enticing and at the same time makes the blood run cold.’¹⁸⁶ There was deep internal conflict about death in Kleist’s letters. For instance, in July 1801 he tells Wilhelmine of an incident whilst travelling on the Rhine, when the boat was caught in a storm and the passengers feared that it would overturn:

¹⁸⁰ *Chambers 20th Century Dictionary*, ed., E.M. Kirkpatrick, (Edinburgh: W & R Chambers, New Edition, 1987), p. 6, ‘bottomless gulf [...] the supposed water-filled cavity under the earth: hell: apparently measureless chasm’; see also *Oxford Dictionary of English* Second Edition Revised (Oxford: Oxford University Press, 2006), p. 7: ‘(the abyss) a catastrophic situation seen as likely to occur’ [...] from Greek *abussos* “bottomless” from *a-* “without” + *bussos* “depth”.

¹⁸¹ See discussion of this in Chapter 1 of this thesis, pp. 76-79.

¹⁸² Casey, *The Fate of Place*, p. 55.

¹⁸³ *Ibid.* p. 63.

¹⁸⁴ *Ibid.*

¹⁸⁵ *Ibid.*

¹⁸⁶ Lukács, *German Realists in the Nineteenth Century*, p. 19.

Each person, forgetting the others, clung to one of the beams, and I did so too, to save *myself*. Ah, there is nothing more disgusting than this fear of death. Life is the one possession that only has value when it is held lightly.¹⁸⁷

Asking how it is possible to value life – that it is not chosen, and it is incomprehensible, immediately follows Kleist's observation concerning his own actions. In the moment of an unforeseen accident he instinctively clung on to life. This was revisited in *Das Erdbeben in Chili*, when the intervention of the earthquake stopped Jerónimo's suicide plan and he hung on to life. There is an anecdote dating from this time which illustrates Kleist's rehearsal of suicidal thoughts. During an outing with Pfuel and Rühle¹⁸⁸ and other friends to Wannsee, the place where he later died, Kleist suggested to the party that the most effective way of committing suicide would be to row out into the lake, having heavily loaded one's pockets with stones in advance, and then to shoot oneself in such a way that the weight of the stones would ensure falling backwards into the lake, thus making doubly sure of death.¹⁸⁹ While there is a mordant quality to this comment, it also makes evident recurrent thoughts of suicide. For Kleist, suicide may have been an end to uncertainty, according to Blanchot, who described it as being:

[...] the passage from the certainty of an act that has been planned, consciously decided upon, and vigorously executed, to something which disorients every project, remains foreign to all decisions – the indecisive and the uncertain, the crumbling of the inert and the obscurity of the nontrue. [...] There is in suicide a remarkable intention to abolish the future as the mystery of death: one wants in a sense to kill oneself so that the future might hold no secrets [...]¹⁹⁰

The avoidance of an unknown future described by Blanchot, may have been the kind of thinking which militated Kleist's actions. While Kleist is concerned with death as personal and self-referential, he either does not comment on the death of others, or is curiously untouched by the deaths of friends

¹⁸⁷ Kleist, *An Abyss Deep Enough*, p. 115.

¹⁸⁸ Otto August Rühle von Lilienstern, a Prussian officer, was one of Kleist's life-long friends from his time in the King's Guards Regiment at Potsdam. Rühle later attended Scharnhorst academy, where Carl von Clausewitz also attended. Rühle returned to the army in 1806 in Prince Hohenlohe's corps in 1806 and by 1834 was a lieutenant-general.

¹⁸⁹ See footnote, *An Abyss Deep Enough*, p. 96. And, Maass *Kleist: a biography*, p. 36.

¹⁹⁰ Maurice Blanchot, *The Space of Literature*, trans. and introduced by Ann Smock (Lincoln, NB: University of Nebraska Press, 1989), p. 104. Though Blanchot mainly considers the representation of suicide in literature, in the course of his discussion of the stoic suicide of Arria wife of Caecnia Poetus, p. 100, he describes Kleist's suicide as '[...] passion which seems to reflect the immense impassivity of death [...]', p. 102. However, this is a misreading of Kleist's thinking about death and his own suicide.

or colleagues. He does not mention other writers on the subject, such as Novalis,¹⁹¹ who also had a preoccupation with death based on personal grief, even though Kleist admired and published his writings,¹⁹² nor did he concern himself with the looming shadow of mass death on the battlefields of the Napoleonic wars, though he worried about how his friends Pfuel and Rühle were in the war.¹⁹³ It is unclear what Kleist felt about his cousin, Carl Otto von Pannwitz, shooting himself when Kleist was seventeen, especially as they had previously made a suicide pact.¹⁹⁴

Kleist died in a suicide pact with a terminally ill woman of the same age, on 21 November 1811. Kleist's suicide is a tragedy of choice, of an appalling decision ultimately made because he could no longer find a way of living with himself, his *lebensplan* long ago fallen away. There has been a tendency to interpret Kleist's life and oeuvre in the terms and manner of his death, but it seems a retrograde step to read his life and work in terms of this early death, since he did not create his work with the plan that he would actually kill himself: his death does not really tell us or give us further insight into how to read his work. Even though he had his *lebensplan*, it was always in danger of collapsing, yet he did not live his life in the shadow of death – despite his repeated speculations about how to best commit suicide. While death was a preoccupation and suicide a recurring possibility for Kleist, in the letters and prose he does not come across as suicidal, in the accepted sense of the modern idea of a suicidal person as one of depressive, perpetually low feelings, immobility and a perceived ineffectual relationship with the world. Despite their heightened emotional states, the *Sturm und Drang* writers were not specifically suicidal. The publication in 1787 of Goethe's epistolary novel, *Die Leiden des jungen Werther* (*The Sorrows of Young Werther*) had caused a sensation, since – as a result of his unrequited love for Lotte – Werther kills himself. Kleist knew the work and wrote a subversive and droll anecdote undermining Goethe's novel.¹⁹⁵ Even though few of his family and friends would have been surprised as to the nature of his demise, Kleist's suicide can be interpreted as collapse – yet, it is hard to determine when the final moment of collapse actually occurred. The last letters Kleist wrote show a frenetic and exultant sense of purpose, organizing his last things and his intention to voluntarily die – they do not and cannot ultimately provide all the reasons for

¹⁹¹ Motivated by the death of and grief for his 15 year old fiancée, Novalis wrote considerably about death, see *Hymns to the Night*, 1800.

¹⁹² Kleist was invited by the Hardenberg family to publish Novalis's collected works. See Maass, *Kleist: a biography*, p. 137.

¹⁹³ See his impassioned letter to Pfuel, 7 January 1805, when Pfuel is about to return to the army, and also letter to Ulrike, 24 October 1806, when Kleist expresses concern about how Pfuel and Rühle are in the war, in Kleist, *An Abyss Deep Enough*, p.159–60 and p. 167.

¹⁹⁴ See Maass, *Kleist: a biography*, p. 11 and 7.

¹⁹⁵ See Kleist, 'A More Recent and Happier Werther', in *An Abyss Deep Enough*, pp. 281–82.

such a drastic action to end uncertainty, nor precisely what his thinking was at the fateful moment when he made the decision to kill himself. In the letter to Marie von Kleist of 10 November 1811, he identifies a rawness of feeling and that life has become intensely painful:

But I swear to you, it is quite impossible for me to go on living; [...] I have at last become so vulnerable that the smallest offense, which every person's feelings are subject to in the ordinary course of things, causes me twice and three times the pain.¹⁹⁶

Unusually, in this letter he makes a link between himself and the historical moment in which he finds himself, that he can neither escape nor change it:

Of course it is true that, I, quite as much as they, have lacked the power to put these out-of-joint times to rights; I feel, however, that the will that lives within my heart is very different from that of those who go about repeating this witty allusion:

*The time is out of joint; O cursed spite,
That I was ever born to set it right!*

and, in short, I wish to have nothing more to do with them.¹⁹⁷

This letter conveys a sense of dislocation with the world, and a sense that he can no longer comprehend it or find a place in it, but also a sense of bad timing, or being out of his time. While the suicide letters reveal his disconnection from the social realm, there is no sense that Kleist is seeking revenge, nor is he

2.2 Henriette Vogel.
Minature,
(n.d.)
artist
unknown.
Photograph,
James
Swinson



2.3 Kleist
death mask,
Kleist
museum
Frankfurt an
der Oder.
Photograph,
James
Swinson



¹⁹⁶ Ibid. p. 201.

¹⁹⁷ Ibid. p. 202. Kleist quotes *Hamlet* I.v.188, it is the last speech in Act I. Kleist chooses this reference and interprets it as the disconnection with his own time, rather than the more obvious 'To be or not to be', which can be interpreted as alluding to suicidal thinking.

manipulating the guilt of others. The consequence for Kleist was death, and as with so many of his previous journeys, Kleist was not alone – he entered into a suicide pact with Henriette Vogel, a woman with terminal cancer, whom he met through the Berlin literary circle with which he was involved. The sense of a final journey is echoed in one of her last letters to her husband, Louis Vogel, where death is described as though she were embarking on a voyage, that she is Kleist's fellow traveller: 'Kleist, who wishes to be my faithful companion in death as he was in life, will attend to my passage and then shoot himself.'¹⁹⁸

And inevitably for Kleist, death was spatial, a collapse. He wrote to Marie von Kleist, '[...] you will understand that my one exulting concern can only be to find an abyss deep enough to leap in with her'.¹⁹⁹ In this description, Kleist is looking for a material place, an abyss with a deep, but finite end, a bounded place, in which he can conceal himself and Henriette Vogel.

In the eighteenth century attitudes to suicide were changing. Persuaded by Enlightenment thinking, Friedrich II (1712–1786) decriminalized suicide in Prussia in 1751. Hume asks in his essay 'On Suicide' from the mid-1750s:

What is the meaning then of that principle, that a man, who tired of life, and haunted by pain and misery, bravely overcomes all the natural terrors of death, and makes his escape from this cruel scene: that such a man, I say, has incurred the indignation of his Creator by encroaching on the office of Divine Providence, and disturbing the order of the



2.4 Kleist and Henriette Vogel's grave, Kleiner Wansee, near Potsdam. Photograph, James Swinson

¹⁹⁸ Maass, *Kleist: a biography*, p. 282.

¹⁹⁹ Letter to Marie von Kleist, Berlin, 19 November 1811, in Kleist, *An Abyss Deep Enough*, p. 203.

universe? [...] This is plainly false; the lives of men depend upon the same laws as the lives of all other animals [...]²⁰⁰

While in this reflection Hume identifies the acceptance of suicide as an end to personal suffering, he further asks, ‘Has not everyone, of consequence, the free disposal of his own life? And may he not lawfully employ that power with which nature has endowed him?’, thus arguing that suicide is separate from religious and judicial constraint, while also asking the contentious question of who owns the individual. Hume referenced the novel *La Nouvelle Héloïse* (*The New Eloise*) (1760), where Rousseau explored questions of suicide, though in a more qualified manner by presenting pro and contra positions as two letters responding to each other, thus avoiding committing himself to a specific stance on suicide: ‘When our life therefore becomes a misery to ourselves, and is of advantage to no one, we are at liberty to put an end to our being.’ And prophetically, given the nature of Kleist and Henriette Vogel’s deaths, Rousseau ended the first letter:

O what a pleasure for two sincere friends voluntary to end their days in each other’s arms, to intermingle their latest breath, and at the same instant to give up the soul which they shared in common! What pain, what regret can infect their last moments? What do they quit by taking leave of the world? They go together; they quit nothing.

Notwithstanding these two views, the subject of suicide remained the cause for debate among Enlightenment thinkers who were not unanimous in their acceptance of the morality and decriminalization of the act. Kant was resolutely opposed to suicide; this position may have had its origins in his Pietist upbringing as much as in his advocacy of forbearance as the duty of the individual:

[...] to preserve one’s life is one’s duty, and besides everyone has an immediate inclination to do so. [...] They preserve their lives *in conformity with duty*, but not *from duty*. By contrast if adversities and hopeless grief have taken away the taste for life; if the unfortunate man, strong of soul, more indignant about his fate than despondent or dejected, wishes for death, and yet preserves his life, without loving it, not from inclination, or fear, but from duty; then his maxim has a moral content.

However, despite the shifting positions on suicide as an act, the problem of the body of the suicide remained, and both the Protestant and Catholic churches in northern Europe were strict concerning the burial of suicides, and tended to retain the dishonoured or ignominious burial until late in the

²⁰⁰ David Hume, *Essays on Suicide and the Immortality of the Soul*. By the late David Hume, Esq. With remarks by the editor. To which are added, two letters

nineteenth century. In his study of the suicide's body, Craig Koslofsky observed that '[...] suicide could transform an honourable member of the community into an outsider, leaving a dishonoured body whose proper place of burial was uncertain'.²⁰¹ This was something that both Kleist and Henriette would have been aware of, and embarked on their suicide uncertain as to what would happen to their bodies and where they would be buried, unentitled to an honourable funeral. According to the official report of the court officer, following examination by the court physician and police officials, Kleist and Henriette Vogel were buried hastily on the same day at 10 o'clock at night in the place where they died by the lake, Kleiner Wannsee. But, even by the standards of the time, this was a clandestine and covert internment, designed to avoid overt attention to the double suicide, and even perhaps the possible inference that Kleist was having an affair with a married woman. News of Kleist and Henriette's double suicide spread quickly, including an editorial in London in *The Times*,²⁰² the sensation transcending (momentarily) the contemporary mass death caused by war. It is rare that the place of civilian death and the place of burial should be one and the same.

It was therefore a moving gesture of remembrance that the brothers Grimm visited and covered the unmarked grave mounds with branches of pine in the Prussian custom.²⁰³ The outcome of burying Kleist and Henriette Vogel in a shared grave where they died has given the graves more poignancy than most other literary graves. A century later Kleist's family honoured the grave and paid tribute by erecting a stone marker.²⁰⁴ There is a sense that in their shared grave – away from family plots or internment in family vaults, away from a churchyard with the ordinary dead – they are isolated, that their double suicide has marooned them where they died, on the banks of the Kleiner Wannsee. Their grave, banished from the cemetery, the church, and the city, has created

on suicide, from Rousseau's *Eloisa*. A New Edition, (Basil, Printed for the editor of the Collection of English classics, Sold by James Decker, Printer and Bookseller, 1799), p.6. This essay would not have been freely available abroad, written in the early 1750s it was briefly circulated, then suppressed by Hume, later published posthumously in 1777, a year after his death.

²⁰¹ Craig M. Koslofsky 'Controlling the Body of the Suicide in Saxony', pp.48–63, in Jeffrey R. Watt, ed., *From Sin to Insanity: Suicide in early modern Europe* (Ithaca, NY: Cornell University Press, 2004), p. 52. In this chapter Koslofsky notes that in Saxony burial of suicides in churchyards was permitted but the graves were located beside the perimeter walls, or just outside and depended on the circumstances and ability to petition the case to the church in question.

²⁰² *The Times*, 28 December 1811, p. 2.

²⁰³ The brothers Grimm visited and wrote a description of the graves. See Maass, *Kleist: a biography* p. 300. The Grimms' collected the *Abendblätter* and had the most complete collection of its six-month run; they particularly liked the *Anecdotes*, see Kleist, *An Abyss Deep Enough*, translator's note, p. 257.

²⁰⁴ The grave stone has been replaced several times and the wording on it has changed, Max Ring selected the quote from Kleist's play the *Prince of Homburg* 'Nun. O Unsterblichkeit, bist du ganz mein!' (Now. Oh immortality, you are all mine), Act V, scene 2. On the other side of the stone, where both names appear, Ring includes a quote from one of his own poems.

an island, a separateness that is spatialized and has become, in Foucault's terms, both a 'crisis heterotopia' and one of those 'heterotopias of deviation: those in which individuals are put whose behaviour is deviant with respect to the mean or the required norm'.²⁰⁵ Foucault further defines the cemetery as heterotopic, saying that:

The cemetery is certainly a different place compared with the ordinary cultural spaces, and it is a space that is connected to all the other emplacements of the city or the society or the village [...] Up to the end of the eighteenth century, the cemetery was placed in the very heart of the city next to the church.

Thus in the usual course of things the cemetery is part of the city, it is an architectural construction that is part of the fabric of urban space. For Kleist and Henriette Vogel, their grave by the Kleiner Wannsee, away from the cities of Potsdam and Berlin, is doubly a 'crisis heterotopia' – an island determined by their deaths as collapse.

It is through the analysis of the spatialized geographies of Kleist's restless movement, wandering from place to place, never remaining anywhere for very long that Kleist produced all of his literary oeuvre. Yet, the peripatetic life of constant disconnection allowed him to produce work that did not conform to the modes of its time. While Kleist may have felt 'out-of-joint' with his times, this sense of uncertainty of place is the locus of his modernity. The perception of space is further emphasised as Kleist envisages the abyss as an unknowable endless void. Shortly before he died, Kleist wrote to Marie von Kleist:

Really, it is curious how everything I undertake these days collapses; how the ground under my feet, whenever I manage to try taking a firm step, slips from under me.²⁰⁶

The perpetual condition Kleist speaks of, in which the ground beneath is uncertain and foundations are in an unstable state, meant that uncertainty was inescapable and collapse always a possibility.

²⁰⁵ Foucault, *Aesthetics, Method, and Epistemology*, p.180.

²⁰⁶ Kleist, *An Abyss Deep Enough*, p. 198. Towards the end of his life his sister-in-law, Marie von Kleist had become his closest friend; he had also proposed a suicide pact with her.

Chapter Three

Stone: history, material, place, island

This chapter experiments with materiality and uncertainty from the starting point of the stone used to construct the arch. The link between material and collapse is explored. Like the seas surrounding the oceans of Novalis's thoughts, interdisciplinary knowledge from other places is brought together as material histories, natural philosophy, architecture and place.

I. Collecting theories of the earth

I have been on my journey of discovery, or on my pursuit, since I saw you last, and have chanced upon extremely promising coastlines – which perhaps circumscribe a *new scientific continent*. – This ocean is teeming with fledgling *islands*.¹ Novalis

The study of the earth was a pervading preoccupation in the eighteenth century, and much of it centred on the passion for collecting. The 'new scientific continent' Novalis identifies centres on the material from the earth, the uncharted terrains of knowledge forming islands. While some consider geological interest as defining eighteenth century scientific inquiry, others have considered it as a precursor to the emerging science of geology in the first part of the nineteenth century, yet this thinking was prefaced by the writing on the earth in the seventeenth century by prominent figures in the history of science: Robert Hooke (1635–1703), and also by Leibniz (1646–1716). The eighteenth century development of theories of the earth, in which Kant participated, concerned the instability of the matter and material foundation beneath our feet.

Kant's interest in natural philosophy was fundamental to the expansion of his later critical thinking and was the subject of his earliest published works, 'Thoughts on the true estimation of living forces [...]'² 1746 was a summary of the arguments of Leibniz, Descartes and Newton, with particular reference to

¹ Novalis letter written to members of the Romantic Circle in Jena, September 1798, quoted in Introduction, Novalis, *Notes for a Romantic Encyclopaedia: Das Allgemeine Brouillon*. (*The General Notebook*) trans., ed. and introduced by David W. Wood (Albany: State University New York Press, 2007), p. xi. Novalis's emphasis.

² 'Thoughts on the True Estimation of Living Forces and Assessment of the Demonstrations the Leibniz and Other Scholars of Mechanics Have Made Use of in this Controversial Subject, Together with Some Prefatory Considerations Pertaining to the Force of Bodies in General' in Kant, *Natural Science*, pp. 12–155.

theories of motion. While this was an exploration of the merits of the debates advanced by these scholars, it is of significance that Kant viewed this as a study of natural philosophy. This was followed in 1754 by an essay on what external forces may affect the rotation of the axis of the earth, and in the same year he wrote a key essay in terms of his interest in the material of the earth: ‘The question, whether the Earth is ageing, considered from a physical point of view’³ established an interest in the geographic as well as the material or geological. These questions and interests were brought into sharp focus a year later, in 1755, when a series of disasters above and below the ground gave impetus to the question of how to theorise what is under our feet. The earthquake that devastated Lisbon in 1755 was widely felt throughout Europe and had a significant impact on the certainties of Enlightenment thinking. By early 1756 Kant published three essays that attempted to theorise the causes of earthquakes. The second and longest of the earthquake essays provided as detailed a map of the outward spread of the effects of the Lisbon earthquake as Kant could assemble, preceded by a discussion of the possible causes of earthquakes, which centred on subterranean conflagration and chemical imbalance:

The [recent] earthquakes have revealed to us that the surface of the Earth is full of vaults and cavities, and that mines with manifold labyrinths running everywhere are hidden beneath our feet. [...] All these caverns contain blazing fire, or at least an inflammable material requiring only a slight excitation to rage violently and shatter or even split the overlying ground asunder.⁴

In these statements Kant demonstrates a desire to come to terms with the precariousness of the foundation of the earth and to address the limits of knowledge about what is at a deeper structural and material level, reasoning that gaining further understanding derived from as many first-hand sources as possible may provide understandings of how those subterranean vaults can fail.

Kant’s natural philosophy was in advance of a deep interest in the material history of the earth by other German scholars and writers; this was later manifested by figures such as Goethe and Abraham Werner (1749-1817) in obsessive collecting and efforts to find a viable system for classifying mineralogy and geology in the latter part of the eighteenth and early nineteenth centuries. This centred on the concept that geological material held knowledge and that collecting it added to the accumulation of knowledge. Goethe’s polymathic thinking in literary and scientific realms was unified through his concepts of nature. He was an avid collector: beginning in 1770 he amassed a

³ Ibid. pp. 165–81.

⁴ Kant, *Natural Science*, pp. 340–41.

mineralogical⁵ collection of 18,000 items by the time of his death, which was valued at one third of his estate;⁶ he went to some trouble and risk collecting material, making careful notations from where an example was found.⁷ Goethe's collecting was part of his serious endeavour as a scientist and was further emphasized in his first official role for the Weimar court supervising the reopening of the copper-silver mine at Ilmenau, which ended in failure when little ore was found and the mines flooded. Through this position Goethe was put in touch with the Freiberg Mining Academy, which was founded in 1765 and was the first centre for the advanced study of mining and geology. Goethe met its well-known director, Abraham Werner, who also had an equivalent private mineralogical collection. Hamm notes that Goethe's mineralogy collecting was in alignment with his times, and had an 'important place in the cultures of natural history in the eighteenth century, at a time when collections specializing in minerals began to appear all over Europe'.⁸ A central theme Goethe followed from Werner was the concept that mineralogy could yield knowledge. Werner's work was widely known; his chemically ordered system sought a viable method of classification and was arranged, as Hamm notes, '[...] into four large groups: earths and stones, salts, inflammables and metals'.⁹ However, in the proliferation of eighteenth and early nineteenth century classifications, Werner's system did not prevail.¹⁰ For both Werner and Goethe the alpha and omega of mineralogy was, as Goethe wrote, granite, which:

[...] forms the fundament of our earth, a fundament upon which all other mountains rest. It lies unshakably in the deepest bowels of the earth; its high ridges soar in the peaks which the all-surrounding waters have never risen to touch. This much we know of granite and little else.¹¹

Sullivan suggests that for Goethe the significance of granite lay in '[...] nature's eternal *Werden* or becoming'.¹² This expressive condition of becoming is also consistent with a chemical view of mineralogy.

⁵ 'Mineralogical' was the terminology of the time covering: minerals, rocks and fossils. See, E.P. Hamm 'Unpacking Goethe's collections: the public and the private in natural-historical collecting' *The British Journal for the History of Science*, Vol. 34 Issue 3 (September 2001), 275–300 (p. 283). <doi: 10.1017/S0007087401004423> [accessed 28 April 2014]

⁶ Ibid. p. 278.

⁷ See 'table of Granite from the Harz formation series' in Ibid. p. 290.

⁸ Ibid. p. 281.

⁹ Ibid. p. 284.

¹⁰ See Ibid. p. 284, and footnotes 28–30.

¹¹ J. W. Goethe, *Scientific Studies Volume 12. Goethe: The Collected Works*, trans. and ed. by D. Miller (Princeton: Princeton University Press, 1995), p. 131.

¹² Heather I. Sullivan, 'Collecting the rocks of time: Goethe, the romantics and early geology' *European Romantic Review* Vol. 10, Issue 1–4, (September 2001), 341–70 (p. 342). <doi: 10.1080/10509589908570085> [accessed 28 April 2014]

The poetics of mineralogy met practice, when Novalis became one of Werner's students at the Freiberg Mining Academy in 1797, after previously studying law at Jena. While Novalis was studying at Freiberg he began, but did not finish, the poetic and evocative rumination on learning and nature, *Die Lehrlinge zu Sais* (*The Novices of Sais*) (1797–1800). It is a unique, elliptical, reflective discourse based on multiple voices exploring the relationship of nature, science and art; he describes the teacher, generally regarded as embodied by Werner:

He gathered stones, flowers, insects of all sorts and arranged them in rows of many different kinds. [...] he roamed the earth saw distant lands and seas, new skies, strange stars, unknown plants, beasts, men, went down into caverns saw how the earth was built in shelves and multicolored layers, and pressed clay into strange rock forms.¹³

The role of the collector is an ambivalent one, singular and obsessed with ordering. In the course of the piece, Novalis makes a plea for the indivisibility of nature as the source of the thinking of science and poetry, and that nature cannot be set apart:

Scientists and poets have, by speaking *one* language, always shown themselves to be *one* people. What the scientists have gathered and arranged in huge, well-ordered stores, has been made by the poets into the daily food and consolation of human hearts; the poets have broken up the one, great, immeasurable nature and moulded it into various small, amenable natures.¹⁴

The later, unfinished *Notes for a Romantic Encyclopaedia: Das Allgemeine Brouillon*, (1798–99), which Novalis began at Freiberg, was inspired by the encyclopaedia of Denis Diderot and Jean-Baptiste D'Alembert, published between 1751 and 1772, but he eschewed their alphabetical and chronological order. *Notes for a Romantic Encyclopaedia* was an ambitious plan for an encyclopaedia of science, philosophy and poetry. Despite its unfinished state, it was ordered and organized, and built around a structure where nature, poetry, art, philosophy, logic, mathematics, medicine and science are interconnected as crystalline multiple facets of knowledge each carefully and tightly linked to the other. These connections arose in Novalis's practical training in the field, and his role as an administrator and later director of Saxon salt mines at Weissenfels. The link between practice and poetics is a recurring theme in the *Romantic Encyclopaedia*; in the sections devoted to mineralogy it is clear that Novalis planned a more critical assessment of the obsessions of mineralogy, collecting and classifying:

¹³ Novalis, *The Novices of Sais*, trans by Ralph Manheim, illustrations by Paul Klee (New York: Archipelago Books, 2005), p. 7.

¹⁴ Ibid. p. 25.

<Werner's introduction to the oryctognostic system must be *criticized*. Something is lacking in his classification – Where is his principle of necessity – and where is his principle of completeness?>

<First of all, external symptomatics must be dealt with by itself – independently of the *meaning and the indication* of the symptoms – just like language within grammar [...] / Werner has only useful prosaic oryctognosy in mind – this is already something intermediate, a *feeble attempt* at mineralogical systematics or synthesis in the broader sense.>¹⁵

Novalis captures the sense that classification was a linguistic as well as a taxonomic, scientific endeavour, and that the synthesis of interpretation, classification and language could not resolve every systemic problem. This perspective on contemporary mineralogy was a critique of the methods of geological practices and the manner of the expansion of knowledge in the field. The unique quality of the *Romantic Encyclopaedia* lay in its intention to always be working from multiple perspectives and disciplines.

A further critique of the obsession for collecting lay in the work of Tieck, a friend and contemporary of Novalis's and Kleist's, whose strange tale, *Der Runenberg* (*The Rune Mountain*) (1802), tells the story of Christian, a man who leaves his life on the plains, and captivated, enters the terrain of the high mountains; he meets a stranger and is inculcated into the Runenberg, both as mountain and mine – he becomes part of the inside and the outside, tantalised by the idea that the runic mountain will confer knowledge or wisdom. After nearly falling from a high path he encounters a vista in the mountain through which he is dazzled by the naked figure of woman. She hands him a golden tablet inlaid with precious stones, he collapses in a faint and falls from the mountain. When he wakes he has lost the precious object, and fearing the madness of this knowledge of the mountain, he returns to the plains, marries and lives an industrious, prosperous agrarian life. A stranger passes through their midst leaving in their keeping a fortune in gold, which – as the mineral from the caverns of the mountain – drives him mad and away from home. Lured by the 'savage stones'¹⁶ he leaves his wife to sink into destitution. Christian disappears in the mine in the mountain. When he eventually returns, he declares:

“[...] I have brought along with me the richest treasures which imagination can conceive or heart can desire. Look here and wonder!”

¹⁵ Novalis, *Notes for a Romantic Encyclopaedia: Das Allgemeine Brouillon*, No. 533, p. 95. *Oryctognosy*: mineralogy [obs.]

¹⁶ L. Tieck and E.T.A. Hoffmann, *Novellas of Ludwig Tieck and E.T.A. Hoffmann*, trans. by Thomas Carlyle, introduction by Eitel Timm (Columbia, NY: Camden House, 1991), p. 109.

There upon he loosed his sack and shook it empty: it was full of gravel, among which were to be seen large bits of chuck-stone, and other pebbles.¹⁷

All hope of fortune has collapsed and turned to dust. Tieck's story of obsession and misfortune has some connection to Kleist's style, though it predates it. *Der Runenberg* is a sly and knowing critique of the obsessive collecting of the mineralogists. These tales and accounts of stone as an object of obsession, collected, hoarded and studied, return us to the materiality of Kleist's question about the construction of the arch, emphasizing the cut stones themselves which construct the arch, and that stone as a material has potential for a fateful outcome if the imminent collapse of the stones happens. Kleist's formulation raises the unsaid of architecture: that something devised and constructed embeds collapse within its form.

2. Britain, Portland and geological time

The 'promising coastlines' of the '*new scientific continent*', so poetically identified by Novalis, had to some extent been proposed and navigated by Hooke more than a century before, and the 'fledging *islands*'¹⁸ found their correspondence in Robert Hooke's own island narrative and experience on the Isle of Wight, where his theories were grounded in empirical observation. Ideas about the earth took a fascinating turn in Britain in the seventeenth century with the remarkable polymath, Robert Hooke, described by Oldroyd as '[...] inventor (especially of scientific instruments), astronomer, physicist, microscopist, musician, philosopher of science, mathematician, surveyor, architect, and much besides'.¹⁹ Hooke was a significant figure in establishing and expanding the cultures surrounding theories of the earth, as secretary and curator of experiments for the newly founded Royal Society, he ensured the Society's survival.²⁰ From the mid-seventeenth and throughout the eighteenth century, as Porter notes '[...] Earth science was gaining a *social* base hitherto unknown',²¹ and this began to coalesce into intellectual circles. The early topics discussed by the Royal Society were based on the material and agency of the earth: minerals, fossils, earthquakes, continental theories and so on.²² The society initiated the first large-scale public collection of mineralogy and fossils in England, which was followed by a similar collection at the Ashmolean. As the

¹⁷ Ibid. p. 115.

¹⁸ Novalis 1798, quoted in introduction, Novalis *Notes for a Romantic Encyclopaedia: Das Allgemeine Brouillon*, p. xi.

¹⁹ David Oldroyd, *Earth Cycles: A Historical Perspective* (Westport: Greenwood Press, 2006). p. 35.

²⁰ Ibid.

²¹ Roy Porter, *The Making of Geology: Earth Science in Britain 1660–1815* (Cambridge: Cambridge University Press, 2008), p. 3. Porter's emphasis.

²² Ibid. pp. 16–22.

emergent field was predicated on collecting and collections, Hooke cautioned:

The use of such a Collection is not for Divertisement and Wonder and Gazing, as 'tis for the most part thought and esteemed [...] but for the most serious study of the most able Proficient in Natural Philosophy.²³

Hooke had a longstanding interest in the material of the earth – he lectured on theories of the earth from 1667 onwards. Although not published in his lifetime, his lectures included significant studies concerning the outcome of earthquakes, *A Discourse of Earthquake* (1668), and on cycles of the earth. Hooke was censured because his theories were contrary to biblical doctrine. By the end of his life his innovative and bold propositions had retracted to include ideas of the ancients and he became a 'scriptural geologist',²⁴ however, this does not undermine the perspicacity of his earlier theories.

A significant aspect of Hooke's work lay in his contribution to establishing the study of geoscience via fossils. This came in part, as Oldroyd notes, from his birthplace on the Isle of Wight where he observed the strata in the chalk cliffs, a place near Portland where giant fossil ammonites, 'snake stones', were found.²⁵ At that time fossils were not recognized as previously living organisms but were referred to as 'figured stones',²⁶ as having a similarity to animals and plants. However, with the advent of Hooke's publication, *Micrographia*, in 1665, where the fossils he selected and illustrated as part of the study were supplemented by images – as Porter notes, the 'fossil identifications above all were newly aided by high quality engravings'²⁷ – a resultant combination of the technologies of printing and Hooke's application and demonstration of his microscope laid the foundation for the further study of fossils.²⁸ Hooke's lectures were based on his observations of the location of fossils, and Oldroyd notes that this was important for geoscience because:

The first theme was the occurrence of fossils in strata and arguments that they were the petrified remains of former organisms rather than "sports of nature" or the product of some mysterious "Plastik of Vegetative Faculty working in Stones".²⁹

²³ Quoted in Ibid. p. 17.

²⁴ Oldroyd, *Earth Cycles*, p. 40; other theories of the earth were advanced in such works as Oliver Goldsmith's *History of the earth and animated nature* (1774).

²⁵ Ibid. p. 35.

²⁶ Porter, *The Making of Geology*, p. 46.

²⁷ Ibid. p. 36.

²⁸ See Ibid. pp. 46–53, 'Meanings of Fossils', for example Martin Lister (1639–1712) *Philosophical transactions*, and in particular, *Historia conchyliorum* (1686–92) had made him the world's expert on shells.

²⁹ Oldroyd, *Earth Cycles*, p. 36.

Through fossils, notions of strata and the growing realization of geological time were identified, Porter notes that, for Hooke:

[...] strata constituting present land-masses had been formed slowly by natural processes on the sea-bed, with organic remains becoming embedded in them, and subsequently being raised by earthquakes. Strata were thus a witness of the changes the Earth and life had undergone.³⁰

This identification of strata by Hooke cannot be underestimated, and was revisited by further study in the eighteenth and early nineteenth centuries. In particular, it was through Hooke's study of fossils in the cliffs on the Isle of Wight³¹ and in Portland stone that led to this observation about strata in *Discourse on Earthquakes*:

Somewhat above the middle of this Cliff, which I judge in some parts may be about two foot high, I found one of the said Layers to be of a perfect Sea Sand filled with great variety of Shells, such as Oysters, Limpits [sic] and several sorts of Periwinkles [...] and may be about sixty Foot or more above the high Water mark.³²

In addition, the evidence of fossils so high above the water line indicated several outcomes for Hooke; that there were creatures in the fossils that no longer existed; the identification that a layer of shells from a former sea-bed had been



3.1 Ammonite,
Portland.
Photograph,
Jane Madsen

³⁰ Porter, *The Making of Geology*, p. 60.

³¹ Drake notes that the Isle of Wight was separated from Dorset's Purbeck Peninsular by marine erosion. Ellen Tan Drake, *Restless Genius: Robert Hooke and his Earthly Thoughts* (Oxford: Oxford University Press, 1996), p. 61.

³² Quoted in *Ibid.* p. 63.

pushed up; and the hypothesis that earthquakes had some effect on the earth's crust, though he did not reach a final conclusion concerning earthquakes. In Hooke's studies, stone from Portland was important, and in his capacity as surveyor and architect for rebuilding London, Hooke received Portland quarry stones and found and studied the fossils in them:

[...] it has been very much urged upon the Consideration of the Petrification or *Cornu Ammonis* taken out of the Quarry Stone in the Isle *Portland*, whether it could be reasonably supposed that ever there were in the World a Species of *Nautilus* of this shape, and of so vast a bigness [...] ³³

Hooke recognized that the giant ammonite fossils found on Portland exceeded anything that was currently found on the island. In the *Discourse on Earthquakes* there were exquisite engravings of fossils, based on Hooke's drawings, by his friend Richard Waller, including ammonites and shells. Hooke further raises an audacious question:

Therefore before the Opinion be wholly rejected, I would desire them to consider, whether it may not have been possible, that this very Land of *England* and *Portland*, did at a certain time for some Ages past lie within the *Torrid Zone* [...] ³⁴

This hypothesis was proposed based on Hooke's theory of 'polar wandering', ³⁵ a theory later proved by twentieth century theories of continental drift. Hooke did much to set up the work of later scientists, many of whom claimed public recognition. Time was the key arena of thinking that Hooke and other early studies of the earth struggled with, not just the inevitable recognition that the earth was so much older than the generally agreed date of five thousand years, which had been determined by the number of generations which followed God's creation of the earth, but the insights into what fossils and layers told about geological time.

In eighteenth-century Britain, and also in Europe, Hooke's work was known and read, for instance by James Hutton (1726–1797), who published his first observations about geology as an abstract in 1785 entitled *Theory of the Earth*, ³⁶ with the final of the three volumes in 1795. One of Hutton's key

³³ Hooke, 'Discourse of Earthquakes', No. 3. These lectures were read by Hooke between 8 December 1686 and 19 January 1687; in *Ibid.* pp. 226–45 (p. 241). Hooke's emphasis.

³⁴ *Ibid.* p. 242.

³⁵ See 'Hooke's Concept of Polar Wandering on a Oblate Spheroid Earth', in *Ibid.* pp. 87–96.

³⁶ This was predated by the novelist and playwright, Oliver Goldsmith's 8 volume: *An History of the Earth, and Animated Nature* (1774).

findings was framing the concept of ‘deep time’ – that the earth comprised layers incrementally created over a vast period of measureless time and that these layers were not always integral and even, and could be disrupted by violent physical events. This was seen and observed in the folding and movement of geological strata, that stone could collapse and be bent and disrupted. In 1787 this became Hutton’s ‘unconformity’, whereby he observed a layer of stone that had bent into an unlikely parabola. In Playfair’s life of Hutton, he wrote about their visit a year, in 1788, later to Siccar Point, where they observed another ‘unconformity’:

We felt ourselves carried back to the time when the schistus on which we stood was yet at the bottom of the sea, and when the sandstone before us was only beginning to be deposited...The mind seemed to grow giddy by looking so far into the abyss of time.³⁷

This well-known quote describing the unconformity suggests the abyss as a telescopic fissure through which the earth’s layers offered a sense of looking into a deep and barely imaginable past and suggested the concept of ‘deep time’ for geology – that geological time is both spatial and conceptual, whereby collapse and destruction was a significant determinant for interpreting the material of geology. Hutton’s abyss is a configuration of and in time, and rather than the implications of the primal abyss as a bottomless chasm, it is one where looking down through the strata offers a vision of a type of collapse, since the material, living and mineral, has collapsed in time to form the strata of geology. Hutton is considered by many to be the founder of modern geology. However, Drake argues that Hutton’s theory of the earth was ‘almost identical to Hooke’s system of the Earth’³⁸ and that when he was developing his theory, Playfair noted that he read every available theory³⁹ and, similar to Kant’s research, Hutton read all the available literature of the ‘traveller-naturalists’.⁴⁰ Other historians of science are less certain about exactly how much of Hutton’s theory was ‘indebted to Hooke’.⁴¹ Porter notes that, ‘By the end of the eighteenth century almost all geologists had discarded the geomorphological theory of the complete natural stasis of the Earth’;⁴² therefore the outcome of such events as the Lisbon earthquake meant that natural philosophers could no longer hold that the earth did not and was not changing. During the eighteenth century other important scientific work on the earth was undertaken by William Hamilton (1731–1803), who used his time as ambassador to Naples

³⁷ Quoted in Denis Cosgrove, ed., *Mappings* (London: Reaktion Books, 2002), p. 134.

³⁸ Drake, *Restless Genius: Robert Hooke and his Earthly Thoughts*, p. 120.

³⁹ See *Ibid.* pp. 121–28, where she demonstrates the very close textual connections of Hutton to Hooke. During his lifetime, Hooke was frequently in dispute with other scientists, who plagiarized his work.

⁴⁰ Porter, *The Making of Geology*, p. 123, 216

⁴¹ Oldroyd, *Earth Cycles* p. 53.

⁴² *Ibid.* p. 160.

to make a thorough empirical study of volcanoes, titled *Observations on Mount Vesuvius* (1772). While this subject was apparently that of dramatic eruption and potential collapse, instead of considering volcanoes as inherently disastrous, Hamilton suggested that their active force was creative rather than ultimately destructive.⁴³

The development of geological thinking took a different turn with the early palaeontologist, Georges Cuvier (1769–1832), who, after comparing the anatomy of living and fossilized vertebrates, proposed the idea of extinction, though he was not the first to hypothesize this. Cuvier also suggested that fossils occurred within strata. The cultural context in which Cuvier advanced his hypothesis of ‘catastrophism’, in his *Essay on the Theory of the Earth* (1812), was the aftermath of the Lisbon earthquake, and the contemporary situation of the turmoil of the French Revolution and Napoleonic wars. For example, Cuvier states:

Life, [...] has been often disturbed on this earth by terrible events – calamities which, at their commencement, have perhaps moved and overturned to a great depth the entire outer crust of the globe [...] Numberless living beings have been the victims of these catastrophes.⁴⁴

These comments have a social, political and historical resonance. With reference to Cuvier’s theories of catastrophe and extinction, Foucault argues that:

With spatial discontinuity, the breaking up of the great table, and the fragmentation of the surface upon which all natural beings had taken their ordered places, it became possible to replace natural history with a ‘history’ of nature.⁴⁵

Foucault suggests how nature began to be ordered, classified, and archived as an outcome of disaster. In the 1830s Charles Lyell (1797–1875) consolidated geology as an established scientific field of study, and finally refuted the theory of catastrophism, while focusing much of his thinking on the cycles of the geological history of the earth through stratigraphic formation. Lyell did much towards reconciling the work of previous geologic thinkers from the seventeenth century onwards concerning formalizing geological time and the age of the earth. An adherent to Cuvier’s theory of catastrophe, William Smith (1769–1839) was a West Country surveyor excavating canals, who noticed that the layers of

⁴³ See Porter, *The Making of Geology*, p. 161–62.

⁴⁴ Georges Cuvier, *Essay on the Theory of the Earth*. [facsimile copy] (London: Routledge in association with the Natural History Museum 1813/2003), p. 16.

⁴⁵ Michel Foucault, *The Order of Things*, ed. R.D. Laing (London: Routledge, 2000), p. 275.

fossils contained in them could identify strata. This led to the first geological map of Britain. It also did much to develop stratigraphy within geology, Porter notes that this was led by field-based professionals: surveyors, canal builders, coal prospectors and quarrymen⁴⁶ whose work identified the need for geological knowledge, and whose practice had made significant contributions to geology. In developing his map of the geological strata of Britain, fossil material in Jurassic limestone from the Dorset coast was important for Smith's endeavour. At the end of the eighteenth and in the early nineteenth centuries Portland and Dorset's Jurassic coast were important for early geological mapping and the collecting of fossils. William Smith, and Mary Anning (1799–1847), who was based in Lyme Regis, were significant fossil finders and collectors. Smith's considerable fossil collection was arranged stratigraphically.⁴⁷ Smith's 1815 geological map was the first of its kind; by mapping strata, he too looked into the 'abyss of time' and charted volume rather than surface; consequently, he mapped space and time.

With such figures as William Smith and Mary Anning, nineteenth century geology had absorbed working-class discovery and writing into its ranks, yet there were few as unique as the Scot, Hugh Miller, a former quarryman who became a self-taught geologist. Miller was a compelling writer, essayist and poet who wrote lyrically of the work of quarrying, of cutting out blocks of red sandstone and of the discovery of fossils. He was important for establishing working-class writing and experience, and Jacquetta Hawkes refers to his writings. Miller wrote distinctive descriptive writing; he conveyed a powerful sense of what it was to be there unearthing fossils, of the excitement and wonderment, which then drove him towards knowledge and to geology:

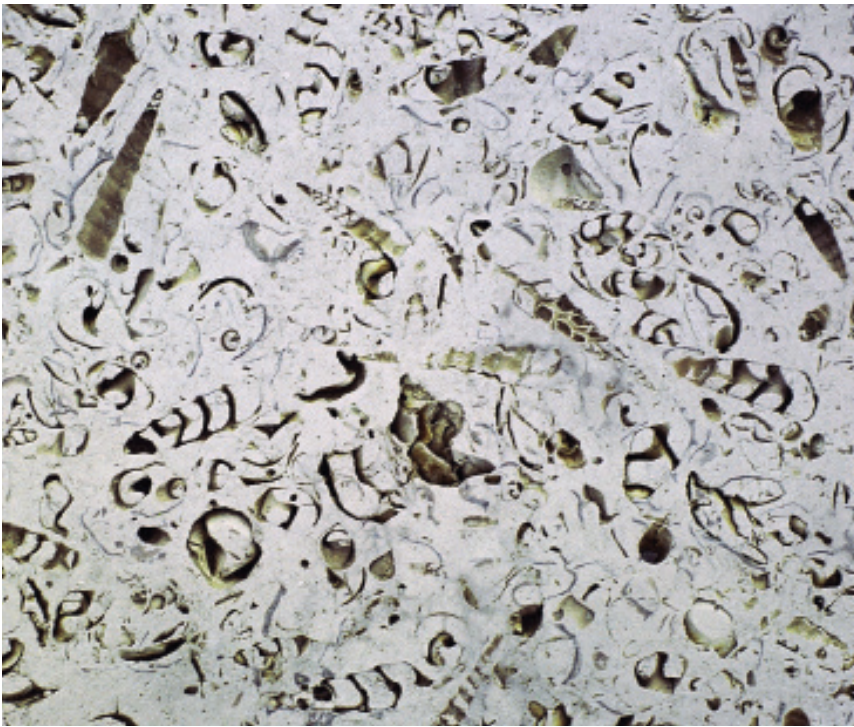
We raised another block in a different part of the quarry, and found that the area of a circular depression in the stratum below was broken and flawed in every direction, as if it had been at the bottom of a pool recently dried up, which had shrunk and split in the hardening. Several large stones came rolling down from the diluvium in the course of the afternoon. They were of different qualities from the sandstone below, and from another and what was more wonderful still, they were all rounded and waterworn, as if they had been tossed about in the sea or the bed of a river for hundreds of years.⁴⁸

Miller depicts the work of quarrying and what it could unearth, as well as

⁴⁶ Porter, *The Making of Geology*, p. 136.

⁴⁷ Simon Winchester, *The Map that changed the World* (London: Penguin, 2002), p. 200.

⁴⁸ Hugh Miller, 'Gropings of a Working Man in Geology' [Chambers's Edinburgh Journal, 28 April, 109–110, and 26 May, 137–139, 1838] reprinted in Hugh Miller, *Hugh Miller's Memoir: From Stonemason to Geologist*, ed. and introduced by Michael Shortland (Edinburgh: Edinburgh University Press, 1995), pp. 248–49.



3.2 'Portland Screw'
Aptyxiella portlandica,
bivalves *Laevitrigonia*.
Fossil shell impressions,
Portland Roach.
Photograph,
Jane Madsen

conveying a sense of what the living sea had been like so many millions of years ago, and how it had laid down the layers of sedimentary rock. Shortland notes that Miller's '[...] achievements in geology lay in the field of description. He recognised, as did few other geologists that the importance of bringing to life the remote eras that geologists were exploring [...]'.⁴⁹ The capacity for language to effectively convey scientific observation and thinking and captivate a wider audience has been important for the progress of all science, and returns to Novalis's preoccupation in the *Romantic Encyclopaedia*.⁵⁰

Portland as a place and a material occupies a significant part in the long and complex history of both geology and architecture in Britain. The study of Portland's oolitic limestone has continued for more than two hundred years; geologists, palaeontologists and biologists have led this research, yet there has been little consideration of Portland in architectural or cultural history and theory or in contemporary writing on site and place. The expansion of quarrying on Portland coincided with the burgeoning interest in the histories and theories of the earth as histories and theories of materiality and origin. Portland stone is an oolitic limestone of the period that took place 100 – 170 million years ago. The stone lies in three beds on top of Kimmeridge clay – the Basebed and Whitbeds have the finest oolitic material, with the Whitbed, the most favoured for building because of its durability and capacity to retain detailed carving; the top layer, the Roach bed, has fossil shell impressions of 'Portland Screw' *Aptyxiella portlandica* and bivalves *Laevitrigonia*. The Jurassic coast of Dorset is the most researched and written about coastline in

⁴⁹ Shortland, in *Ibid.* p. 64.

⁵⁰ See Note 17: Novalis's critique of Werner's language as a limitation in his classification of mineralogy.

3.3 Kingbarrow Quarry,
Portland.
Photograph, James
Swinson



Britain,⁵¹ and Portland is the subject of numerous geological and archaeological studies from the eighteenth century onwards. In general, there is little contemporary writing about stone as an architectural material.⁵² Stone holds time, this attribute of the material is brought to the building; architecture borrows time from the stone from which it is constructed, architecture quarries a geological history along with the material. Stone belongs to a place, it is the material of place, it comes from a landscape; it can be mapped. All stone is located; it can be identified and traced to its source. This relationship is temporal: geological time, excavation time, and architectural time.

3. Portland Stone: architecture and the arch

The landscape of Portland has been created by the removal of its stone; it is a built environment made from the voids left by quarrying. Portland is a site that suggests a tangible image of collapse. Portland has been remade by disaster and collapse – both as accident and outcome. This history can be traced to the late seventeenth and throughout the eighteenth century, when quarrying expanded rapidly on Portland, though Portland stone had been used by the Romans, and for building in the environs of Dorset. On Portland the

⁵¹ See E.D.K. Coombe, *Some Aspects of Coastal Landslips and Cliff-falls at Portland*. (unpublished thesis in the Bodleian Library, Oxford and the School of Geography, Oxford, 1981)

⁵² Recent publications on the subject of concrete and architecture are analogous with its ubiquity as the construction material used in most building from the second half of the twentieth century. Concrete is the antithesis of stone; its materiality is derivative – an amorphous mass that takes shape from the moulds casting it. The most common ingredient of concrete is Portland cement, named because it looked like Portland stone. ‘Portcrete’ was made from reconstituted Portland stone waste in the 1950s and 1960s and was used in the construction of the Centre Point Tower, (1966); each wall panel was cast on the island of Portland, see, Stuart Morris, *Portland* (Wimborne: The Dovecote Press, 2009), p. 50.

landscape of the quarries is architectural negative space. Portland's exhausted, industrial landscape, marked by more than three centuries of quarrying, is one of disruption, dislocation and absence. Recurrent landslips of the coastal cliffs exposed the strata of Portland's fine limestone showing its aesthetic qualities and potential as architectural material. As such, coastal collapse started the quarrying industry in the seventeenth century. The long-term result of four centuries of quarrying to the topography of Portland means that much of the island cannot be built on. The space of the quarries implies both construction and collapse.

Portland Stone was chosen by architects for its durability and for the fine grain of the oolite composing this limestone. Inigo Jones (1573–1652) chose Portland stone to stand in for the whiteness of classicism rather than for its unique qualities, mythically recreating the marble of classical Greece. After Jones, Christopher Wren (1632–1723) took over the monopoly of quarrying the royal manor at Portland. A series of significant historical disasters accelerated the wholesale requisition for Portland stone as a material: firstly, and best known, the rebuilding of the city after the Great Fire of London in 1666; Christopher Wren rebuilt more than fifty churches as well as St Paul's Cathedral, though as his close associate and working under Wren's auspices, it is thought that Robert Hooke was the unattributed architect of some of these churches. Hooke and Wren designed the monument to the Great Fire; it was built in Portland stone, with Hooke executing the precision construction. The monument was designed as a zenith telescope and a scientific instrument, the basement was planned as a laboratory '[...] to allow an operator to observe the heavens up the shaft of the column'.⁵³ Wren chose Portland stone as the primary material for the reconstruction⁵⁴ for several reasons: because the quarries for the rebuilding of London needed to be near a river or the sea in order to transport the stone down to London by ship; the quarries had to be sizable enough to provide the amount of stone required and that since a considerable amount of Portland stone was able to be salvaged from Inigo Jones's portico from the old St Paul's, building work could start and therefore using the same stone would match it, and also Portland was a freestone, meaning that the stone could be easily sawn and carved in any direction, but could withstand considerable weathering. On the northeast coast of Portland a large landslide had occurred in 1636, making the stone workable from the cliff, and six million tons of stone were thus taken

⁵³ Lisa Jardine, *The Curious Life of Robert Hooke: the Man who Measured London* (London: HarperCollins, 2004), p. 171.

⁵⁴ It is claimed that somewhere on the island there is a large block of Portland stone bearing Wren's distinctive quarry mark shaped like an upturned wine glass. However, this is a fanciful notion, Wren's stone does not exist – despite attempts to find it by Dr Mark Gooden, geologist and manager of the quarrying firm, Albion Stone, who is also from an old Portland quarrying family. He explained that a large cut stone is valuable and would have been used long ago. I had a very helpful meeting and discussion with him, (26 July 2011).

for the rebuilding of London. The perpendicular aspect of a cliff face is like the vertical wall of a building, and seeing the whiteness of the stone after a coastal collapse must have been the occasion to consider Portland stone for its aesthetic and architectural qualities. In 1697 another landslip damaged two piers beyond repair and delayed the delivery of stone to St Paul's while the piers were rebuilt. On the whole, though delays were due to the unique work and social arrangements of the insular and somewhat irascible population of the island, which at the time was estimated at about seven hundred. Before Wren could begin the large-scale quarrying of stone from the island, agreements had to be made with the men 'free of the Island'⁵⁵ who had rights to quarry the stone; this was rapidly becoming a lucrative venture, and was finally settled through the manorial court on Portland.⁵⁶ Wren used mainly the Kingbarrow and Waycroft quarries on the cliffs on the north-east of the island; the Kingbarrow quarry fell under the jurisdiction of the royal manor of Portland and was not subject to the complexities over the quarrying rights on the island. Lang suggests that Wren used Kingbarrow quarry because of '[...] the stone produced being of excellent quality, hard white, and obtainable in large blocks [...]';⁵⁷ however, this would have been so because, since an existing quarry was being used, the whitbed layer of the fine oolitic Portland stone about ten feet below the surface would already have been exposed. The best stone does not necessarily come from one quarry on the island. Once the stone has been quarried and prepared and used



3.4 Nicodemus Knob,
Waycroft Quarry,
Portland
Photograph,
James Swinson

as architectural stone, it is not possible to say with any precision which quarry it came from on Portland, owing to the way that the successive beds of the

⁵⁵ See Chapter III 'Stone' in Jane Lang, *Rebuilding St. Paul's after the Great Fire of London* (Oxford: Oxford University Press, 1956), p. 104.

⁵⁶ See Ibid., and also 'Customs of the Manor of Portland', in Norman Bezzant, *Out of the Rock* The Bath and Portland Group (London: Heinemann, 1980), pp. 33–43.

⁵⁷ Lang, *Rebuilding St. Paul's after the Great Fire of London*, p. 105. See 'Stone', pp. 109, 113–15, for discussion of the master masons at St Paul's. In addition, the rebuilding of St. Paul's was very well documented, especially in the *Wren Society Volumes* vols. I–III, XII–XVI.

sedimentary rocks were laid by the warm, shallow seas of the Jurassic period. Portland's deposits of oolitic limestone are contiguous and extend beyond the limits of the coastline. At the northern edge of the Kingbarrow and the Grove quarries there is a pillar of limestone called Nicodemus Knob;⁵⁸ at first glance it seems as though it is a unique geological formation, but it is the remainder of a whole section of cliff left by the quarry men as a tangible demonstration of the vast volume of stone quarried away.

Hooke was one of the principal surveyors⁵⁹ of the burned-out city of London. He learned surveying in order to do the job and became an accurate and precise draughtsman with a unique understanding of the tensions and elasticity of structures, as well as making a good deal of money because each survey was paid separately. The course of this work produced Hooke's 1675 hypothesis of the geometry and tension of the arch, the importance of which was twofold: it demonstrated how to reach the mathematics of how an arch could stay up and remain safe, and it marked an advance in the shift of architecture from the skills of the master mason to the theoretical professional. Hooke created a diagram of how an arch distributed its weight; this was demonstrated by hanging a heavy chain from its ends and observing how an arch works in reverse, writing in Latin '[...] ut pendet continuum flexile, sic stabit contiguum rigidum inversum [...]',⁶⁰ ('[...] as hangs the flexible line, so but inverted will stand the rigid arch').⁶¹ While Hooke did not define an actual mathematical theory for this, it is nevertheless, according to Heyman, a 'powerful theorem'.⁶²

⁵⁸ A similar pillar of oolitic limestone, the Devil's Chimney Leckhampton Hill, Gloucestershire, described as being produced by 'the weathering of joints, slope instability and frost weathering' in Denys Brunsden, and J. Doornkamp, *The Unquiet Landscape* (London: David and Charles, 1972) p. 129. However, it is in a disused quarry and may have been left by eighteenth century quarrymen.

⁵⁹ To facilitate his work as a structural engineer, Hooke and Wren revised the design of the spirit level.

⁶⁰ Jacques Heyman, *Structural Analysis: a historical approach* (Cambridge: Cambridge University Press, 1998), p. 79, Heyman notes Hooke's demonstration of this theorem was included in an unrelated publication, on instruments for looking at the sun and his comments on watches and longitude. See Robert Hooke, *A Description of Heilosopes and Some Other Instruments Made by R.H.* (London: printed by John Martyn, printer to the Royal Society, 1676); and is listed as a further intention '2. *The true Mathematical and Mechanical form of all manner of Arches for Building, with the true butment necessary to each of them.* A Problem which no Architectonick Writer hath ever yet attempted, much less performed.' p. 31. However, the theorem is not published in this, as it was a margin note in the original manuscript – though clearly it was quickly circulated.

⁶¹ Translation in, Jacques Heyman, *Arches, Vaults and Buttresses* (Aldershot: Variorum Publishers, 1996), p. 347. In addition, this is defined as *catenary*: 'The U-shaped curve formed by a heavy inextensible cable, chain or rope of uniform density suspended from its endpoints. The curve is a hyperbolic cosine.' in, Christopher A Gorse, David Johnston, Martin Pritchard, *A Dictionary of Construction, Surveying and Civil Engineering* (Oxford: Oxford University Press, 2012), p. 71.

⁶² Jacques Heyman, *Arches, Vaults and Buttresses*, p. 347. Heyman notes in *Structural Analysis: a historical approach*, pp. 79–80, that: Leibniz '[...] appears to have obtained the solution in 1691, and indeed Huygens and John

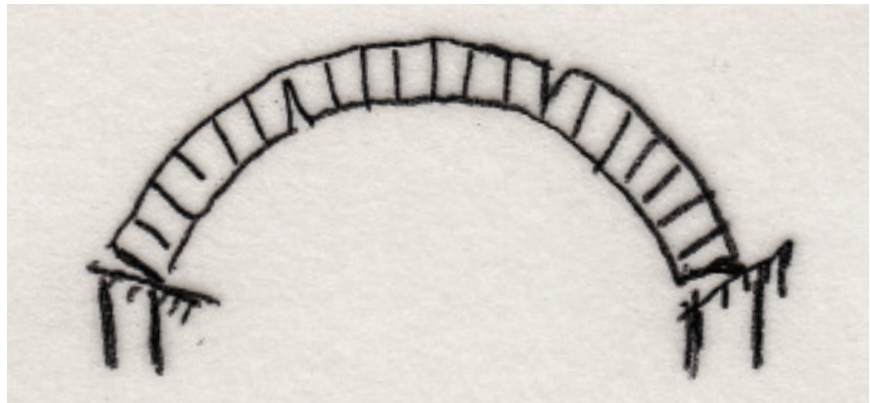
Hooke's diagrammatic hypothesis was tested and proved,⁶³ and Block et al. assert the importance of a visual demonstration:

The power of physical models and simulations cannot be denied. For example, it was Hooke's hanging chain that convinced his colleagues of the forces acting in tension under a given load as an inverted form of the forces in an arch.⁶⁴

In his extensive work on calculating the engineering and plasticity of stone structures Heyman analyses how a stone arch can collapse. He discusses the *voussoir* arch⁶⁵ as a 'simple form of masonry construction',⁶⁶ and that hinges or cracks between the stones can occur and 'transform the structure into a mechanism',⁶⁷ and further:

[...] the collapse (unstable) state of a masonry construction is characterized by the formation of hinges sufficient in number to turn the structure into a mechanism. The position of the thrust line is determined at the hinge sections, and the thrust line is unique at collapse for the collapsing portion of the structure.⁶⁸

3.5 'Hinges' on a *voussoir* arch causing collapse. Drawing, Jane Madsen after Jacques Heyman *Arches, Vaults and Buttresses*, p. 163



[sic] Bernoulli also seem to have solved the problem at the same time', further noting such was the 'secrecy and competition' that their hypotheses were not 'fully supported by mathematical proofs. It fell to David Gregory to publish the mathematics in 1697' And though Gregory made mistakes, his understanding was that '[...] the horizontal component of the abutment thrust of an arch has the same value as the horizontal pull exerted by the equivalent hanging chain [...] in modern terms [...] if any thrust line can be found lying within the masonry, the arch will stand'.

⁶³ In 1748 Poleni used Hooke's theory to assess the cracks in the Dome of St. Peter's in Rome and proved that it was safe.

⁶⁴ P. Block, M. DeJong, and M. Ochsendorf, 'As Hangs the Flexible Line: Equilibrium of Masonry Arches', *Nexus Network Journal* Vol. 8, No. 2, (2006), 13–24. <DOI: 10.1007/s00004-006-0015-9> [accessed: 26 February 2015]

⁶⁵ *Voussoir* arch: 'An arch [...] that contains wedge-shaped blocks, which are placed in such a way as to distribute the load efficiently to maximize the compressive strength of the stone', in Gorse, Johnston and Pritchard, *A Dictionary of Construction*, p. 481.

⁶⁶ Heyman, *Arches, Vaults and Buttresses*, p. 7.

⁶⁷ Ibid. p. 5. He is referring to the work of others: Pippard and Baker.

⁶⁸ Ibid. p. 14.

Heyman further states that cracks in arches are '[...] idealised as hinges [...] Cracks are not necessarily signs of incipient collapse – they indicate that the structure has responded to some unpredictable shift in the external environment';⁶⁹ he suggested that this can occur, for example, with the shift of a river bank and a stone arched bridge. In Kleist's metaphor of the arch made from stones that want to collapse *at the same time*, the focus was on internal rather than any external forces which may precipitate change, both conceptually and materially.

The science of engineering that Hooke began to identify in his diagrammatic, mathematical and geometrical demonstration with the chain as an inverted arch was advanced in order to prove the practical viability and safety of construction of an arch. Later, in the eighteenth century, theories of engineering can be seen as further extending, especially in France, into the teaching of stereotomy⁷⁰ – the theoretical, scientific application of descriptive geometry to stone masonry and wood cutting for arches, vaults, domes and trusses, where geometrical theory broke the dependence of the architect and engineer on the stone mason and set about establishing an order of authority. At the same time, this identified a situation where theory could not resolve all the answers for the practices of architecture and, for Pérez-Gómez, the struggle for intellectual authority could neither answer nor overcome the crisis shaped by the theoretical. He suggests, with reference to Husserl, that this occurred in the late eighteenth century with the advent of 'non-Euclidean geometries' and that '[t]his development in mathematics augured the possibility that the external world of man could be effectively controlled and dominated by a functionalized theory subsumed by technology.'⁷¹ The outcome of this was a struggle for differing forms of knowledge. Pérez-Gómez comments on one of the earliest treatises on stereotomy by Desargues (1640), who thought that:

[...] the architect should provide the craftsman with the precise stereotomic tracings to cut every piece of stone, just as he provided plans, sections, elevations. Architects should never allow the masons to invent these tracings since they had nothing more to go on than their own experience.⁷²

However, Pérez-Gómez also notes that in the eighteenth century Frezier

⁶⁹ Ibid. p. 388. XXIV. 'The Collapse of Stone Vaulting'

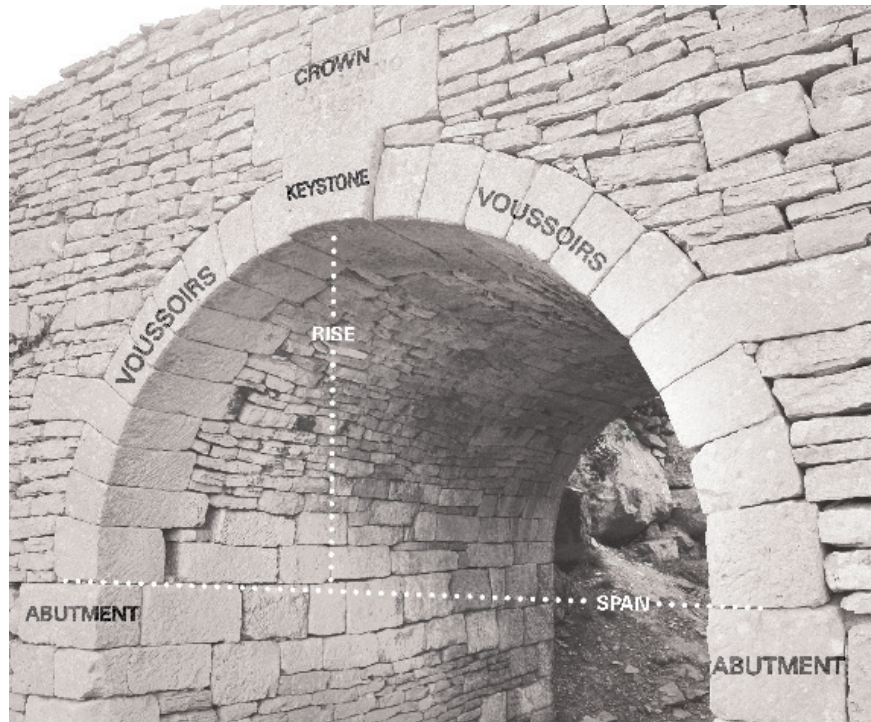
⁷⁰ See Joël Sakarovich 'The Teaching of Stereotomy in Engineering Schools in France in the XVIIIth and XIXth centuries: an application of geometry, an "applied geometry", or a construction technique?' in Patricia Radlet-de Grave, and Edoardo Benvenuto *Entre Mécanique et Architecture / Between Mechanics and Architecture* (Basel, Birkhäuser Verlag, 1995)

⁷¹ Alberto Pérez-Gómez, *Architecture and the Crisis of Modern Science* (Cambridge, Massachusetts: MIT Press, 1983), p. 5.

⁷² Ibid. p. 232.

concluded his initial findings on the subject that:

[...] the “natural geometry” of the craftsman was usually enough to solve most problems of stone- or woodcutting. His theoretical *tour de force* was therefore rendered ineffective by a traditional practice that was for the most part still successful.⁷³



3.6 Parts of an arch.
Lano's Arch, Tout
Quarry, Portland.
Photograph,
Jane Madsen

Thus, the intellectual authority of ‘technological control’⁷⁴ was undermined by the material knowledge of the craft of the stonemason, which additionally had the experience of history. To some extent, this tussle for understandings concerning material knowledge can be addressed with reference to Stiegler’s thoughts on *tekhnē*, that ‘Technics (*tekhnē*) designates, however, first and foremost all the domains of skill’⁷⁵ and that:

Technology is first of all defined as a discourse on technics. But what does technics mean? In general, technics designates in human life today the restricted and specified domain of tools, of instruments, if not only machines [...]⁷⁶

Stiegler argues that ‘modern technics’⁷⁷ began in the eighteenth century, but that ‘[w]ith the machine, a discrepancy between technics and culture begins

⁷³ Ibid. p. 233.

⁷⁴ Ibid.

⁷⁵ Bernard Stiegler, *Technics and Time, 1: The Fault of the Epimetheus* (Stanford: Stanford University Press, 1998), p. 93.

⁷⁶ Ibid.

⁷⁷ Ibid. p. 68.

because the human is no longer a “tool bearer”.⁷⁸ To some extent Stiegler repositions production, fabrication or the application of skill as *tekhnē*, which also implies *tekhnē*-as-thinking. Therefore, though stereotomy generated a technical system, this was only in an imposed theoretical mode. By removing the system from the craftsman’s skill it could not be constituted as a *tekhnē*, because it was dislocated from any material outcome. According to Stiegler, ‘[n]ew technical systems are born with the appearance of the limits of the preceding systems, owing to which progress is *essentially discontinuous*’,⁷⁹ and thus the extrapolation here that the development of stereotomy did not follow in a defined order and did not fit together with specific production needs.

4. Portland: material, memorial and collapse

A deep connection to the poetics of land and landscape has a long history in Britain, from the Enlightenment theories of the sublime from Hume and Burke, to landscape painting by Gainsborough, Turner and Constable, to Wordsworth’s picturesque and the wildness of Emily Brontë’s nature. During the nineteenth and into the twentieth centuries the depiction of landscape can be linked to changing social relationships, and the questions of class and place that emerged through such writers as Thomas Hardy (1840–1928) and D. H. Lawrence (1885–1930) in novels and poetry. After WWI, landscape and a sense of place was in the painting and photography of Paul Nash (1889–1946), the painting of Ben Nicholson (1894–1982), John Piper (1903–1992), Graham Sutherland (1903–1980) and Peter Lanyon (1918–1964), the sculpture of Henry Moore (1898–1986) and Barbara Hepworth (1903–1975), the photography of Bill Brandt (1904–1983), in the films of Humphrey Jennings (1907–1950), Michael Powell (1905–1990) and Emeric Pressburger (1902–1988), and in the connotations of landscape and socialism in J. B. Priestly (1894–1984) and the archaeological histories by Jacquetta Hawkes. The number of depictions of stone, at sites such as Stonehenge or Avebury, in the work of these artists attests to this sense of a mystical and material attachment to land.

This connection to land and material found a poignant symbol in another large scale requisition of Portland stone just over two centuries later. This time, it was the social and political collapse of war: Portland stone was used for memorials following the First World War and, subsequently, the Second World War. A compelling image of a landscape of disruption and a world in a state of collapse is the turmoil of the First World War. Early in the war the battlefields of France and Belgium already held innumerable casualties, yet the fate of the dead had barely been considered. Shocked by the disregard and disorder of the

⁷⁸ Ibid. p. 69.

⁷⁹ Ibid. p. 33. Stiegler’s emphasis.

battlefield, and the lack of preparation and provision for the dead, Fabian Ware (1869-1949),⁸⁰ a Red Cross unit leader, initiated the formation of the Imperial War Graves Commission.⁸¹ Ware organized burials, and by 1915 his unit had registered 30,000 graves. Ware stopped exhumations and the repatriation of the bodies of those whose families could afford to bring them back to Britain, insisting that all ranks, all peoples of the Empire and all religions were buried together – equal in death. Equality was taken into consideration in the design of the cemeteries: Ware consulted Sir Frederic Kenyon, director of the British Museum, who arbitrated on the designs submitted, and recommended rows of flat headstones of uniform design,⁸² ‘[...] their ordered ranks carry on the military idea, giving the appearance as of a battalion on parade’,⁸³ erected above flattened, level turf of the eastward facing graves; though, this was not without opposition from those who wanted designs reflecting Christian sentiment. The simple gravestone looks similar to the ancient Egyptian burial stele, a reference Kenyon was undoubtedly aware of, suggesting an intention



3.7 CWGC Cemetery,
Portland.
Photograph,
James Swinson

that these graves should be marked for time immemorial.

Portland stone was the principal material chosen for the headstones because it was reliable, cheap and importantly, British.⁸⁴ The flat tablet of white

⁸⁰ Fabian Ware fought in the Boer War. At forty-five he was too old to enlist so joined the Red Cross. His unit was taken over by the army and by the end of the war Ware was a Major-General.

⁸¹ Later Commonwealth War Grave Commission (CWGC)

⁸² Headstone measures: 38.5" x 15" x 6.75" (99.06 x 38.1 x 7.62 cms). This design not used in Turkey [Gallipoli], Greece and other sites prone to earthquake or extreme weather.

⁸³ Frederic Kenyon, *War Graves. How the Cemeteries Abroad will be Designed*, Report to the Imperial War Graves Commission (London: His Majesty's Stationery Office, 1918), p. 7.

⁸⁴ Hopton Wood limestone was also used, but it was harder and more difficult to carve.

limestone was secular. Carving individual stones was expensive; however, a machine invented in Lancashire based on the pantograph was able to inscribe regimental badge, name, rank, regiment, date of death, religious symbol and a short commemoration supplied by next of kin. The difficult question of how to commemorate the missing with no known grave was onerous, and resolved through memorials naming the absent dead. After visiting the battlefields, Kenyon recorded the disorder in his report for Ware and the IWGC:

Many bodies are found but cannot be identified; many are never found at all; many are buried in graves which have subsequently been destroyed in the course of fighting. This is especially the case in Ypres,



3.8 CWGC Cemetery, Portland.
Photograph, James Swinson

where the same ground has been contested for three consecutive years, and the whole countryside has been blasted and torn with shell fire. [...] Yet, these must not be neglected, and some memorial there must be to the lost, the unknown, but not forgotten dead.⁸⁵

The largest and earliest cemeteries were in France and Belgium on or near the sites of battlegrounds, and the French and Belgians made land readily available. The principal architects for the memorials and cemeteries were Reginald Blomfield, Edwin Lutyens and Herbert Baker. The memorials of Menin Gate by Blomfield, and Thiepval by Lutyens both used large-scale vaults to house the flat Portland stones bearing the names of the missing dead. These designs deconstruct the triumphal arches which had glorified eighteenth- and nineteenth-century wars, and Lutyens's Thiepval memorial to the missing, based on multiple arches, seems like it is part of a larger structure – the crossed form implies a transept, but is also a gateway leading nowhere. The typographer Macdonald Gill designed a font used uniformly on all graves and memorials: 500,000 names of the missing are carved into Portland stone, text

⁸⁵ Kenyon, *War Graves. How the Cemeteries Abroad will be Designed*, p. 5.

and stone forming a material nexus tracing over the absent body.

In designing and building the memorials and cemeteries, the provisional, makeshift architecture of the battleground was replaced and order exerted over the chaos, disruption and collapse brought about by the first industrialised war.⁸⁶ Blomfield designed the 'Cross of Sacrifice' made from Portland Stone and embedded it with a bronze broad-sword; this latter embellishment conveys an ancient sense of the Arthurian and chivalric. The cross was available in three sizes, from 18' to 32' for cemeteries of forty or more, juxtaposing a more prosaic standardization reminiscent of nineteenth-century industrialization and planning versus the formal classical references in the memorials. The Portland Stone Cenotaph, designed by Lutyens, had been a temporary structure in Whitehall, but the weight of feeling generated by this symbolic empty grave created the need for it to become permanent. Lutyens's initial intention was to repeat the motif of the unmoving, unfurled stone flags used in his design for the cemetery at Etaples, which was a rather sentimental and obvious gesture, and not one of his best designs. The most powerful of Lutyens's designs was the 'Stone of Remembrance', which fulfilled Kenyon's aspiration that the large monument at the cemeteries '[...] should be simple, durable and dignified [...]'.⁸⁷ The Stone of Remembrance, set on three steps, was located at the eastern end of cemeteries of over 1,000 graves and was based on geometric proportions



3.9 Cross, designed by Reginald Blomfield, CWCG Cemetery, Portland. Photograph, James Swinson

⁸⁶ At the end of WWI: 1,115,000 dead: 584,000 identified graves, 530,000 dead and missing and 180,000 unidentified graves.

⁸⁷ Kenyon, *War Graves*, p. 10.

from the Parthenon: it was 12' long and weighed 8 tons, and had an inscription chosen by Rudyard Kipling from Ecclesiasticus: '*Their name liveth evermore*'.⁸⁸ The austere, secular altar Stone of Remembrance made from Portland stone is a weighty piece of the English landmass, a material manifestation of place, of belonging, and redolent of Rupert Brooke's 1914 poem, *The Soldier*:

If I should die, think only this of me:
That there's some corner of a foreign field
That is for ever England. There shall be
In that rich earth a richer dust concealed;
A dust whom England bore, shaped, made aware [...]

The 'dust' borne and shaped by England became the stone marking the graves of the dead, and like many of the bodies beneath the earth, also originated within the shores of England. The Stone of Remembrance imparts gravitas to grief and endeavours to fill the psychic and material void of absent bodies. This is mirrored in the holes left behind on Portland from quarrying the stone for the headstones and memorials. A poignant paradox, a double absence, is generated: in order to commemorate the absent body, absence is created by the removal of the stone. This double absence further occurs in the property of limestone as the flesh-eating stone, a concept based on the chemical effect on a body observed in early limestone sarcophagi.⁸⁹ By the completion of the WWII cemeteries, the CWGC had bought approximately 120,000 tons of Portland stone, which works out to 100,000 tons of finished stone.⁹⁰ Distributed in foreign fields around the world, there are between 700,000 and 800,000⁹¹ grave markers of Portland stone, the disaster of war redressed and ameliorated through the process of mourning and the construction of memorials.⁹² The

⁸⁸ 'Their bodies are buried in peace; but their name liveth for evermore.' Ecclesiasticus 44. 14, Apocrypha, KJV. Kipling was the literary advisor to the IWGC and wrote or selected text for the memorials and cemeteries.

⁸⁹ Limestone coffins in Greek *sarcophagi lithos*: meaning *sarx* = flesh, *phagien* = to eat, *lithos* = stone

⁹⁰ Bezzant, *Out of the Rock*, p. 211.

⁹¹ There are CWGC graves in 23,000 cemeteries around the world, some dedicated war cemeteries and others in general cemeteries with a war grave section. They are as far flung as Australia, North Africa, and, poignantly in Gaza, but most of the CWGC graves are in Belgium and France. See: <<http://www.cwgc.org/find-a-cemetery.aspx>>

⁹² A new memorial is being developed on Portland. David Adjaye has designed a tower for the Mass Extinction Memorial Observatory (MEMO) to be built in the former Bower's Quarry. The plan is that the tower will house carvings depicting the 860 species that have become extinct since the dodo. The tower is a continuous spiral, based on the fossil shell from the roach layer, Portland Screw *Aptyxiella portlandica*, and on the Ammonite, though a squashed interpretation of these forms and looking more like one of the old lime kilns on Portland. In the middle of the building there will be a bell, which will toll the end of another species. The publicity for the project frequently invokes and quotes Robert Hooke. The project has backing from: the Royal Society, and the convention on Biodiversity, with prominent figures such as Tim Smit from the Eden Project and Ghilleen Prance former director of Kew Gardens.

aestheticized, pared down uniformity of the serried ranks of the flat white gravestones, which cast a shadow on the turf and the abstract, geometric sculpture of the Stone of Remembrance bring modernity to the design of the CWGC cemeteries, a further reminder that this was a war ushering in the modern industrial age.

Displacement and upheaval of land and cities occurs through natural disaster, accident and war. The connections between geological time and the material of place can be demonstrably traced to architecture made from stone. A limited numbers of texts about the use of stone in British architecture appeared after WWII, in the 1950s and 1960s. The likely imperative for writing about stone in this period was the need to repair and restore war-damaged buildings. Repair offers a deeper sense of renewal; stone has enduring qualities – it has continuity with the land, it has survived for millions of years. These ideas had particular resonance during and immediately after the First and Second World Wars, when a poetics of landscape proliferated in writing, film and art.⁹³ New forms of cultural history about land and landscape appeared. In 1955, W.G. Hoskins wrote *The Making of the English Landscape*, an evolutionary and topographical history of human intervention in the landscape, developing the new discipline of local history and partly laying the ground for the contemporary discipline of place and site writing, a critical area in architectural thinking, and the more recent advent of ‘earth writing’.⁹⁴ Jacquetta Hawkes’s ‘memoir’, *A Land*, published in 1951,⁹⁵ was a unique cultural, literary geology and archaeology of Britain, and was written as a deep history of the layers of

Recently, the biodiversity scientist, E. O. Wilson turned the first clods for the foundation. The £20–£26 million design looks like Breughel’s *Tower of Babel*, painted three times between 1563 and 1564, and also the images from Paul Virilio’s *Bunker Archaeology*. The MEMO is a cone shaped, a hive of death, hiding the hidden space of the void of the quarry underneath. It is a mausoleum, an archive of extinction – each Portland stone block carved with an image of the (now) extinct species, but each block is already made of dead creatures that sank into the Jurassic sea-beds, and many blocks already contain extinct species as fossils. The project does not so much seem to be a monument suggestive of collapse, but one of failure. See: <www.memoproject.org/docs/MEMO_brochure.pdf>. See also: <<http://www.independent.co.uk/news/uk/this-britain/for-whom-the-bell-tolls-20m-memo-project-takes-shape-on-dorsets-jurassic-coast-7848566.html>>

⁹³ See for example: J.B. Priestly’s BBC WWII broadcasts, Humphrey Jennings’s *Dim Little Island* (1948); Powell and Pressberger’s *Edge of the World* (1937), *I Know Where I’m Going* (1945), and *The Small Back Room* (1949) the last 20 minutes of which was filmed on Chesil Beach with Portland in the background. Graham Sutherland 1903–1975 painted *Origins of the Land* 1950–51 for *The Land* pavilion Festival of Britain 1951, Barbara Hepworth 1903–1975, Peter Lanyon 1918–1964, Bill Brandt 1904–1983.

⁹⁴ See note 5, Hayden Lorrimer, ‘Memoirs for the Earth: Jacquetta Hawkes’s literary experiments in deep time’, *Cultural Geographies*, Vol. 19, No 1. (January 2012), 87–106. <DOI: 10.1177/1474474011432377> [accessed 18 February 2015]

⁹⁵ Written from Spring–Autumn 1949, Jacquetta Hawkes *A Land*, 1951 was a surprise success; it received a very favourable review from Harold Nicholson and went through five impressions in fourteen months.

geological time and human habitation that had made Britain. *A Land* returns to the themes of the potential for geology (and archaeology) as poetics that captivated Novalis in *Die Lehrlinge zu Sais* (*The Novices of Sais*) one hundred and fifty years previously. Hawkes acknowledges in the preface to the 1978 edition that it is an original work.⁹⁶ She represents the geological layers of the land and archaeology of early human occupation of Britain as a poetics of place and location. Though Hawkes trained as an archaeologist, the majority of *A Land* is concerned with geology, as she reaches back in time to the material history of geology as an enduring link between land and people.

Hawkes elides any discussion of geography, though place is articulated through discussion of the vertical history of the located Victorian naming of the periods of the geological table: Cambrian the romantic name for Wales; Ordovician and Silurian from the Welsh Celtic tribes the Silures and Ordovices; Devonian as the source of vertebrates found in Devon; and the Carboniferous and Cretaceous deriving from ‘English coal and English chalk’.⁹⁷ Time is key to the project of *A Land*; Hawkes said that ‘As business men have packeted *Cerebos* [salt], geologists, as we know, have packeted time.’⁹⁸ She describes the formation of the land as:

Every layer of the sedimentary rocks that has formed since life began, each layer of rubbish accumulated since man became an artificer, can be distinguished through this extraordinary fact – that existence is never for two moments the same. [...] So by diversity and process the geologist and archaeologist are enabled to do their work, to distinguish each peculiar instant of time.⁹⁹



3.10 Stone sample:
Fancy Beach Whitbed,
Albion Stone, Portland.
Photograph, James
Swinson

⁹⁶ Jacquetta Hawkes, *A Land* (London: David and Charles, 1978), p. 1.

⁹⁷ Ibid. p. 32–33

⁹⁸ Ibid. p. 70.

⁹⁹ Ibid. p. 29–30.

She writes of the making of Britain by geological time, built up through the gradual layering of sediment and movement of the ancient oceans and landmasses, to the disruption and layering of strata. As such, the material of Portland stone is both an index and manifestation of collapse in the form of the layers of living creatures that died and sank to the bottom of the shallow seas during the Jurassic period. The volumes of fossils that comprise Portland stone are also boundaries of chthonian histories, of dead creatures falling to the bottom of a warm sea as life collapses in time. The discussion of geological time is interrupted with links that reach towards the connection and use of the material of stone. She is especially drawn to the seventeenth and eighteenth centuries:

In forming the oolitic limestones, the wide sea of the Jurassic Age made the greatest and fairest contribution to the buildings which in time were to be raised in Britain.¹⁰⁰

Hawkes says, with reference to architecture:

Portland and other less fine but lovely oolitic building stones form a relationship between the Jurassic Age, the eighteenth century and ourselves, its latest inheritors. English eighteenth century architecture could not have achieved some of its highest felicities without this ideal material.¹⁰¹

Hawkes articulates how architecture can reach back in time to the geology of the material from which it is constructed and can then be dressed in its history.

3.11 Stone samples:
Bowers and Jordans
Basebed,
Albion Stone, Portland.
Photograph,
James Swinson



¹⁰⁰ Ibid. p. 121.

¹⁰¹ Ibid. p. 76.

The precariousness of imminent disaster links the development of all these theoretical perspectives. The shadow of the recent past was acknowledged in Hugh Massingham's review of *A Land* at the time of its publication in 1951: 'It is a germinal book and truly heralds a change in cultural orientation that bitter experience has made tragically overdue.'¹⁰² Later critics see the work differently:

As a contribution to factual knowledge about the British landscape and its evolution, *A Land* is now virtually worthless; as a device for recruiting converts to the infant cause of landscape history it was important; as a literary evocation of place infused by time, it is invaluable.¹⁰³

This comment on the veracity and style of the work suggests that Hawkes was not aware of what she was doing; however, she refers to the piece as a 'memoir', a remembrance, an evocation of loss, and she acknowledges that it did not fit into any 'accepted category: it was not a work of science, of scholarship, of opinion, or of fiction, but a curious blend of them all'.¹⁰⁴ The 'memoir' begins with her lying in the garden of her house in Primrose Hill and feeling the ground beneath her and describing a physical sense of belonging and being part of the land. Perhaps after the upheaval of WWII, the sense of temporal connection and continuity with the land was based on a deep and physical need.

At the Festival of Britain in 1951 Hawkes advised and oversaw the design, construction, contents and layout of two pavilions: the archaeologically based *Origins of the People of Britain*,¹⁰⁵ and in *The Land of Britain*, which gave her the opportunity to demonstrate a three-dimensional model of *A Land* as a clear expression of her profound, heartfelt attachment to the archaeology and geology of Britain, and also as a sense of belonging and shared ownership of the land, which was devoid of cynicism or world-weariness and indicative of the optimism of post-war socialism. At the festival, it was Graham Sutherland's large painting *Origins of the Land* (1951),¹⁰⁶ painted for *The Land of Britain* pavilion, which best created an evocation and distillation of Hawkes's vision

¹⁰² Hugh Massingham, *The Spectator* (1951), in Christine Finn, *A life on line: Jacquetta Hawkes, archaeo-poet 1910–1996*, <<http://humanitieslab.stanford.edu/ChristineFinn/Home>> [accessed: 10 September 2012]

¹⁰³ Richard Muir, 'Reading the landscape, rejecting the present', in *Landscape Research*, Vol. 23, No. 1, (1998), 71–82, (p.73). <DOI: 10.1080/01426399808706526> [accessed 18 February, 2015]

¹⁰⁴ Hawkes, *A Land*, introduction (1978 edition), p. 1.

¹⁰⁵ Jacquetta Hawkes, 'The Origin of the British People: Archaeology and the Festival of Britain' *Antiquity*, Vol. 25, No. 97, (1951), pp.4–8. <DOI: 10.1017/S0003598X00020639> [accessed: 10 September 2012]. In this Hawkes gives a clear sense of her role in the *Origins of the People of Britain* pavilion, her role on the *Origins of the Land* pavilion is less clear.

¹⁰⁶ 4255 x 3277 mm

of the poetics of geology. Sutherland's painting is a cross-section of the stratigraphy of the earth: the top quarter is spiky, geometric human habitation, the level below contains pterodactyls and shell-like organic fossils, emerging from a fiery primordial stone basebed that looks like blocks of Portland stone. All the forms in the painting are the colour of Portland stone and rest on a yellow-orange background; the total effect is modern and ancient at the same time. The early editions of *A Land* included two drawings by Henry Moore. The first has the subtitle 'His lines follow life back into the stone',¹⁰⁷ which seems more likely to be a comment by Hawkes about the effect of Moore's drawing and sculpture than the title itself and in the text she wrote:

Once when I was in Moore's studio and saw one of his reclining figures with the shaft of a belemnite exposed in the thigh, my vision of this



3.12 Graham Sutherland,
The Origins of the Land,
1950–51
Painting, 4255 x 3277 mm
Courtesy, Tate London

¹⁰⁷ Jacquetta Hawkes, *A Land* (London: Readers Union, Cresset Press, 1953), Plate A.

unity was overwhelming. I felt that the squid in which life had created that shape, even while it still swam in distant seas was involved in this encounter with the sculptor.¹⁰⁸

The discussion of artists working with stone tells much about Hawkes's approach to the poetics of her literary geology, since she describes and approaches fossils as though they were sculptures, and she actively sought to bring together art and geology.

5. Portland: [work] place, island

[...] he sometimes cast his eye across the Thames to the wharves on the south side, and to that particular one whereat his father's tons of freestone were daily landed from the ketches of the south coast. He could occasionally discern the white blocks lying there, vast cubes so persistently nibbled by his parent from his island rock in the English Channel that it seemed as if in time it would be nibbled all away.¹⁰⁹

So Thomas Hardy describes Portland stone arriving in London from what he calls the 'Isle of Slingers' in *The Well-Beloved: A Sketch of Temperament* (1897). Hardy captures the incremental shrinkage and disappearance of the island, as the stone is carted away piece by piece. There is a sense that the island of Portland may collapse in on itself, buried under the rubble left behind, becoming its own cenotaph. Portland is an uncertain place, always changing as another absence is made.

A distinctive feature of Portland's landscape is the collapsed landslip material from the cliffs, called 'weares'. Brunsden et al. noted that '27% of Portland is affected by landslips (c. 317 ha out of a total area of c.1130 ha) this includes

¹⁰⁸ Hawkes, *A Land* (1978 ed.), p. 104. In 1953 Hawkes wrote the voice over commentary for a short documentary film on to Barbara Hepworth: *Figures in a Landscape* dir. Dudley Shaw Ashton about the relationship of the landscape, stone and sculptures used by Hepworth, the film was narrated by Cecil Day-Lewis. She had previously written the script for *The Beginning of History*, 1946. Directed by Graham Wallace. For the Ministry of Information. See Jacquetta Hawkes, 'The Beginning of History: a film', *Antiquity*, Vol. 20, No. 78, (1946), 78–82. <DOI: 10.1017/S0003598X00019402>

[accessed: 10 September 2012] and also BFI<<http://explore.bfi.org.uk/4ce2b9fe9263f>>. Lorrimer, *Cultural Geographies*, p. 94, note 22, states that Hawkes's 'peers were the "romantic moderns"' as described by Alexandra Harris. However, in the light of Hawkes's film work, it could be argued that she follows the model established by Humphrey Jennings in his work for the GPO and Ministry of Information film units, where people and place, were represented as poetic socialism through the use of Mass Observation. Jennings made *Family Portrait* 1951 for the Festival of Britain.

¹⁰⁹ Thomas Hardy, *The Well-Beloved: A Sketch of Temperament* (London: Everyman Paperbacks, 1997), p. 41.

most of the coastal fringe'.¹¹⁰ They add that the earliest record of coastal landslip is from 1615; occurring relatively frequently, there have been seventy-two landslips since then. The Portland coast has the most landslides in Britain, causing problems for quarrying, as well as necessitating the demolition and reinstating of many buildings. The east 'weares' above King Pier is 'the most active area on the island with over 40 records of movement since 1665 and regular report of failures which raise reefs in the sea floor'.¹¹¹ The west side of the island is described as:

This stretch of cliffs is one of the most spectacular cliff walls in Britain. The coast is very straight due to its structural guidance by the master joint sets. The Kimmerage Clay is just below sea-level and there is full exposure to the Westerlies and a high-energy wave environment. [...] All stages of detachment and foundering are visible including partially detached 'hinge' slips.¹¹²

The vertical fissures in this cliff make it look as though it is in a state of imminent collapse. Distinct horizontal layers of sedimentary rock with vertical joints characterize limestone. The graphic and visual representation of limestone as a brick wall in geological mapping diagrams, developed prior to colour printing and digital graphics, is a visual demonstration of these fissures and cracks. This is both advantageous and dangerous for quarrying, as the joints can facilitate the removal of stone, but are also unstable. Brunsden et al.

3.13 Cliff with 'hinge' slips, North of Wallsend Cove to Mutton Cove, Portland. Photograph, Jane Madsen



3.14 Fissure, below Rufus Castle, Portland. Photograph, James Swinson



outline how the geomorphology of Portland further adds to the propensity for the joints or 'gullies' in the limestone to enlarge and weaken, causing cliffs to collapse; these collapses tend to occur more in February and March especially

¹¹⁰ Denys Brunsden, Ken Coombe, Andrew S. Goudie, and Adrian G. Parker, 'The structural geomorphology of the Isle of Portland, southern England', *Proceedings of the Geologists' Association* Vol.107, No. 3 (1996), 209–30. (p. 214). <DOI:10.1016/S0016-7878(96)80030-7> [accessed: 20 November 2010] The total area of the island is 4.4 square miles.

¹¹¹ Ibid. p. 218.

¹¹² Ibid. p. 219. Cliffs: North of Wallsend Cove to Mutton Cove. See film installation: *Portland Nos. 2 – 5 (North of Wallsend Cove to Mutton Cove, Portland Bill, West Weares, Independent quarry, Tout Quarry)* 2010–2012.



3.15 Map: Portland,
Ordnance Survey maps
1926-1927

after prolonged rain,¹¹³ which '[...] result from the super-position of the permeable, well-jointed limestone and sandstone of the Portland Group on the impermeable ductile Kimmeridge Clay'.¹¹⁴ The geology of these coastal landslips links with Paul Carter's thoughts on the study of coasts,

The coast was primarily conceived as an arena of intellectual inquiry; in this form it was the line that enabled the scientist to draw other lines. [...] Its very disarray, the mimic resemblance of its productions to the specimens arranged in a cabinet de curiosités, [...], suggested a museum in the making.¹¹⁵

Carter creates an evocative picture of the relationship of science to the delineation of coasts as both real and abstract, and that coasts, as edges under constant battering by the sea, elude fixity.

Portland is one of the sea areas listed in the practical and lyrical poetics of the shipping forecast, heard by the early riser and last thing at night, prepared 'for those in peril on the sea'¹¹⁶ and incorporated by Seamus Heaney into a poem.¹¹⁷ The Channel Light Vessel automatic coastal weather station, which collects and records weather information, is sited in the Portland sea area. The seas around the island are dangerous, in particular the Portland Race converges at the end of the Bill, where a layer of rock continues beyond the coast under the sea and determines tides and currents, and also the Shambles Sandbank. In the past this was treacherous for shipping and was the site of many wrecks, until the first lighthouse was built in 1789.¹¹⁸ Despite the dangers of the sea, Portland's strategic island location on the English Channel was ideally suited to fortification – Rufus Castle was built in 1300, Portland Castle was built in 1589 for Henry VIII's navy;¹¹⁹ also for maritime use, the navy had a base on Portland for one hundred and fifty years.¹²⁰ The rain and the sea pound

¹¹³ Ibid. p. 209. For example, after a very wet period on 25 July 2012 a cliff collapsed on Dorset's South West coastal path killing a young woman. <<http://www.theguardian.com/uk/2012/jul/25/woman-dies-cliff-collapses-dorset>>

¹¹⁴ Howard Falcon-Lang, 'Classic localities explained 7: The Isle of Portland, Dorset, England' *Geology Today* Vol. 27, No. 1, (January–February 2011), 34–38 (p. 38) <DOI: 10.1111/j.1365-2451.2011.00780.x> [accessed: 18 February 2015]

¹¹⁵ Paul Carter, 'Dark with Excess of Bright: Mapping the Coastlines of Knowledge' in Cosgrove, ed. *Mappings*, p. 132.

¹¹⁶ Hymn: *Eternal Father, Strong to Save* by John Newton (1779), music William Whiting (1860s), anthem of British Navy. See BBC Radio 4: 5, 1 am

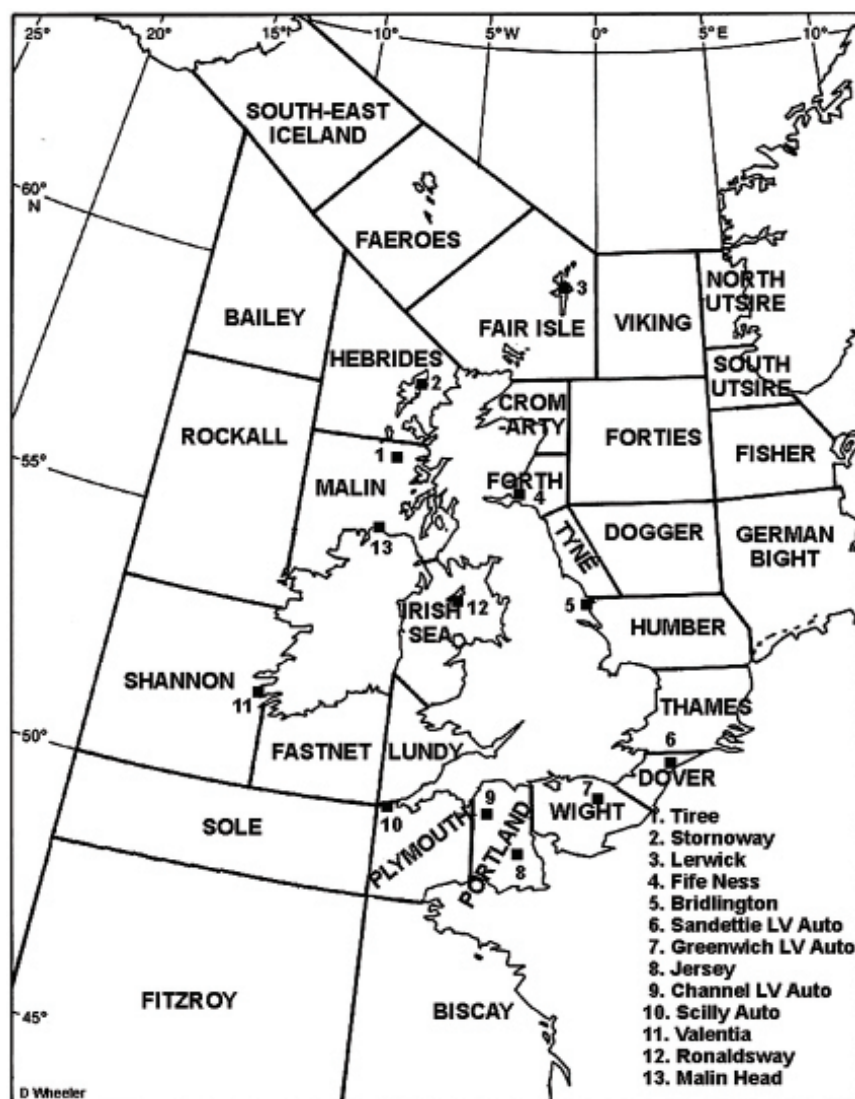
¹¹⁷ Seamus Heaney, 'Glanmore Sonnets VII', 1979, in *Opened Ground: Poems 1966–1996* (London: Faber and Faber, 1998), p. 169.

¹¹⁸ See Trinity House: http://www.trinityhouse.co.uk/lighthouses/lighthouse_list/portland_bill.html

¹¹⁹ The presence of the Royal Navy began with the construction of Portland Castle for Henry VIII in 1539 as fortification in Weymouth harbour; the castle was strategic during the Spanish Armada, 1580s.

¹²⁰ See 'Postscript', in J.H. Bettey, *The Island and Royal Manor of Portland: Some Aspects of Its History with Reference to the Particular 1750–1851* (The Court Leet of the Island and Royal Manor of Portland in association with

3.16 Map: Sea areas of British Isles, including coastal weather stations



the coast of Portland;¹²¹ it is treeless and windswept, though, as Howard Falcon-Lang notes, there are many trees on Portland, but they are under the surface dead and petrified as ‘fossil forests’ of ancient conifers, and that when quarrying was less industrialised quarrymen would find eight metre lengths, and also the ‘impressive circular, doughnut-shaped stromatolites are evident, formed when cyanobacterial mounds built up around the mounds of dying trees’.¹²² This was also written about by Thomas Hardy:

To find other trees [...] it was necessary to recede a little in time – to dig down to lose a stratum of the underlying stone-beds where a forest of conifers lay as petrifications, their heads all in one direction, as blown down by the gale in the Secondary geologic epoch.¹²³

University of Bristol Dept. Extra-Mural Studies, 1970). The navy left Portland in 1995, closing its base and the Royal Naval Air Station, HMS Osprey, causing the loss of 4000 jobs.

¹²¹ On 7 January 2014 the rock stack known as ‘Pom Pom Rock’ collapsed in severe weather. See: http://www.dorsetecho.co.uk/news/10917636.Ancient_rock_stack_on_Portland_Bill_destroyed_by_high_seas/

¹²² Howard Falcon-Lang, *Geology Today*, p. 36.

¹²³ Hardy, *The Well-Beloved*, pp. 72–73. See Falcon-Lang, *Geology Today*,

Hardy captures the quality of isolation at Portland, and also the lives and customs, class and personal relations of three ancient quarrying families involved in the business of quarrying, selling and shipping the blocks of stone. The kind of weathering as that seen on Portland was explored by Adrian Stokes as the effect of rain and water on limestone:

The spectacular witness of limestone weathering or natural sculpture has inspired many of the comprehensive images on which civilizations have been based [...] The interaction of limestone and water is always poetic, always appealing to the imagination.¹²⁴

This interaction acts as water penetrates the cracks in the limestone, causing it to collapse and return to the sea. For Stokes, limestone has an originary, Neolithic connection: ‘There is an association between man and limestone underlying all architecture. Most caves are in limestone. During unknown aeons caves were the homes of men.’¹²⁵ At present in Jordan’s mine at Portland an ever increasing underground, cavernous, architectural space is being made as the blocks of stone are cut away.¹²⁶ As Hardy had done previously in his novel about the fictionalised Portland, Stokes creates an irrevocable link between architecture, sculpture and limestone:

The jutting cornice, the architrave mouldings, the plinths and blocks, have a definitive relation to the joints of stones as seen in quarry or cliff; and particularly to limestone, medium between the organic and the inorganic worlds. [...] The influence of material upon style is an aspect of art history that is never sufficiently studied, especially in relation to building.¹²⁷

In his captivation with limestone for architecture and art, Stokes considers its inherent quality, ‘[...] a uniform radiance, flesh-like and complete’¹²⁸ and reconfigures the stone as flesh.

Portland as a site is contradictory: an island that is not an island, there is a paradox in the durability of the stone against the instability of the cliffs. A substantial amount of Portland cannot be built on because it is so disrupted by quarrying and landslips, and the arable strip fields, or ‘lawns’, remnants of mediaeval agriculture on the south of the island, are of archaeological

p.37, who notes that this is probably not how the trunks fell.

¹²⁴ Adrian Stokes, *The Stones of Rimini* (New York: Schocken Books, 1969), p. 33.

¹²⁵ Ibid.

¹²⁶ Visit and tour of Albion Quarries mine: 31 May, 2011. Mining is done with large-scale stone saws from Carrera, and is less environmentally invasive than quarrying.

¹²⁷ Stokes, *The Stones of Rimini*, pp. 43–44.

¹²⁸ Ibid. p. 55.

significance. Falcon-Lang acknowledges the interdependence of geology and quarrying:

[...] much of what we have learned of Portland's geology has depended upon the long history of quarrying, which has created accessible exposures across the entire length of the isle.¹²⁹

The villages and hamlets on Portland fit in the gaps between the quarries; the majority are built from Portland stone, the vernacular architecture of the quarrymen's cottages was created using available stone of variable proportions. Portland is a terrain of scars; quarrying has irretrievably changed the



3.17 West weares, Portland.
Photograph, James Swinson

topography of the island – it is impossible to return it to an undisturbed state. The ‘weares’ of the fallen material at the bottom of the cliffs are not just the fallen rocks of coastal collapse; the term ‘weares’ also applies to layers of debris and off-cut stone at the quarries, in the past often dumped over the cliffs, and used as partial infill across the island. The ‘weares’ look as though something has collapsed, or a disaster has happened, like a battlefield; but the ‘weares’ are also constructed, the abandoned rubble making unintended, random sculptures, abstract arrangements from the piles of stone.

The island of Portland is an intriguing and compelling site: its multiple histories suggest a nexus of departures, and it is never possible to return to the same island, as each day and each week part of it is taken away. Quarries are industrialised work places, and perhaps too quotidian for architectural historians who prefer the outcome of the material rather than its source. Portland is an industrial landscape constructed by labour working to extract the blocks, in the past using the plug and feathering method, where a hinged wedge is driven into a hole drilled in the stone and then opened up to break it

¹²⁹ Falcon-Lang, *Geology Today*, p. 38.

away. Explosives tend not to be used at Portland, as they damage the stone.¹³⁰ Stone is a commodity bearing the marks of the labour that worked it. The blocks of Portland stone are marked with the measurements of the stone, the site it was quarried from and the bedding direction that the block lay in the ground; until the prosaic spray can of the twentieth century, the legacy of Roman quarrying was the use of chiselled marks on the stone based on Roman numerals. The landscape also bears marks of those tools: drill lines scarify downwards on the stone as the quarries were excavated. For many men in the quarries, time was measured in the duration of a prison sentence's hard labour, where working the stone was both punishment and rehabilitation, their relationship to the site legally determined as bodies in space. Portland has two



3.18 Albion Quarries,
Cut and measured stone.
Photograph,
Jane Madsen

prisons, the Grove and the Verne.¹³¹ Casey discusses Foucault's concept of 'docile bodies' from *Discipline and Punish*, that the concept is located:

[...] bodies that exist only in sites and as a function of sites. The fate of such bodies is to be incarcerated – positioned – in buildings. Bodies and buildings alike have become site-specific.¹³²

At Portland the quarries were a further location of this site-specificity of the body as the hard labour extending the space of the quarries through working and moving the stone. The Grove prison, built by convict labour in 1848, was regarded by reformers as a model because it offered the chance for prisoners to earn a ticket-of-leave when they were transported to Australia,¹³³ their past histories buried under the rubble of the quarries, lost in the gaping holes they

¹³⁰ See *Portland Stone*, (Pathé News, 1955. Film 2 min.) 1:30 min – 1:50 min. <<http://www.britishpathe.com/video/portland-stone>>, *The Island of Stone*, (Pathé News, 1934. Film 2 min.) <<http://www.britishpathe.com/video/the-island-of-stone-portland>>

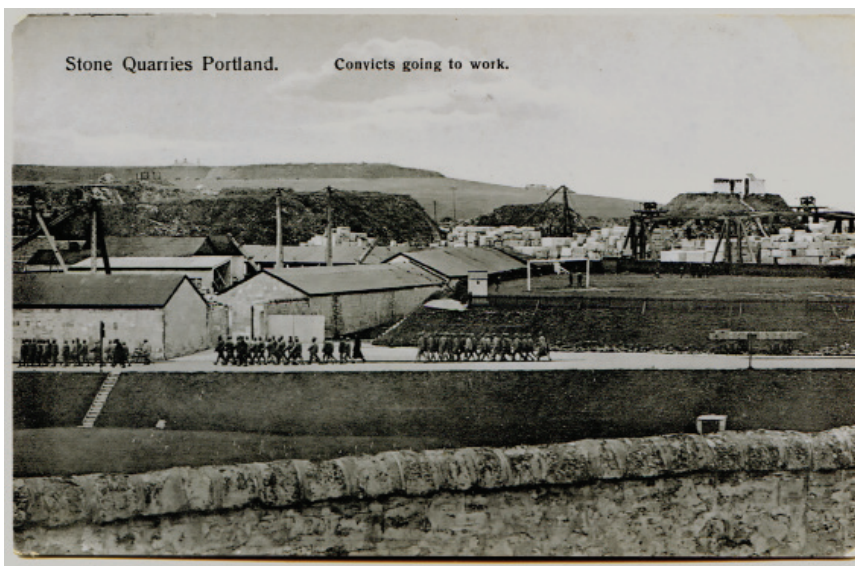
¹³¹ Originally an army garrison which could house up to 3,000 troops, the Verne was converted to a prison in 1949.

¹³² Casey, *The Fate of Place*, p.184.

¹³³ Bettye, *The Island and Royal Manor of Portland*, p. 122.

worked into the landscape. Without prison labour from the Grove prison it would not have been possible to build in Portland Harbour one of the largest breakwaters ever built; a considerable engineering project designed for use by the navy as their base, it used stone from Admiralty Quarry. Convicts also built and worked a number of lime kilns on the island. The images of quarrying in the work of unskilled prisoners and skilled quarrymen show that Portland is constantly under construction, as each stone is won from the landscape in a battle for a material.

Cosgrove and Daniels refer to Ruskin's treatment of 'landscape as a text'.¹³⁴ However, the way that landscape may be regarded as 'text' may depend upon how it is being read, and by whom, since that sense of 'reading' can be from multiple perspectives – as potential art work, as site, as situation, as geology, as science, as archaeology, as history, and – in the case of Portland – as the architecture of absence, as disruption and as collapse. Reading 'landscape as text' also has an experimental quality: it moves across ideas, disciplines and practices, as with Novalis's *Romantic Encyclopaedia*. This reading is also the



3.19 Postcard: Convicts, Portland, pre-1910

contemplation of space, of staring out to sea, to the horizon, of looking down from the vertiginous cliffs, and of staring into the space of the empty quarries. The landscape of the quarries is a built environment constructed from the voids of absent stone; it is the negative space of architecture, but there are no architects or builders present in their construction. The walls of the quarries – scarred by drills, cutters and saws – show the history of quarrying, and the geological strata exposed evoke the levels of a building.

The quarries are containers that are being emptied out, their construction creates a vessel that is empty. Returning to Casey, who extrapolates with

¹³⁴ Cosgrove and Daniels, *The Iconography of Landscape: essays on the symbolic representation, design and use of past environment*, p. 5.

reference to Aristotle's idea that place is determined by the condition of being *in* it: 'To be in a place is very much like being in a vessel, and the question becomes just *how* is this so – thereby calling for further descriptive refinement.'¹³⁵ Casey further questions whether Aristotle is moving away from the view of 'regard[ing] either form or matter as providing the key to the nature of place'¹³⁶ but concludes that place depends on the '[...] power to hold things in'.¹³⁷ However, if this is applied to the situation of the quarry, the quarry becomes a de-limited limit, that, by quarrying, the space of the vessel is emptied – in this instance, the power of the quarry as a vessel lies in its capacity for *not* holding anything, that in the limit is the representation of the absent material. Whereas place is:

[...] this immediately environing thing taken as a limit. But the limit belongs to the surrounder, not to the body surrounded [...] As a vessel, such as a glass or a jug, surrounds its content – say air or water – so place surrounds the body or group of bodies located within it ¹³⁸

3.20. Perryfield Quarry, Portland.
Photograph,
James Swinson



but according to Aristotle '[...] the vessel is a place which can be carried around, so place is a vessel which cannot be moved around',¹³⁹ but it can be changed or expanded: in the case of the quarries, the limits of the vessel are uncertain and never the same, as each piece of stone is cut and carried away.

At the abandoned and working quarries space is a remainder, a history; it is both the absent material and the material absence, and, as such, space becomes something – at the quarries space is *made*. This is contrary to the view Kant advances:

¹³⁵ Casey, *The Fate of Place*, p. 54.

¹³⁶ Ibid.

¹³⁷ Ibid .

¹³⁸ Ibid. pp. 54–55

¹³⁹ Ibid p. 55.

One can never represent that there is no space, although one can very well think that there are no objects to be encountered in it. It is therefore to be regarded as the condition of the possibility of appearances, not as a determination dependent on them.¹⁴⁰

Kant suggests that space is the outward appearance of possibility, an idea of imminence, of something impending, that in the future something might come into being; this does not necessarily have to be an actual form, though this is not absolutely ruled out. The sheer scale of the space left behind compels the viewer of the quarry to re-imagine the stone that has been taken away, to re-build the landscape out of the absent blocks of free stone. Carter suggests methods for 'viewing emptiness', concluding that 'in materialising the laughable offspring of dust, it was pleasurable to prove that things as we see them right here generate expectations of things elsewhere and out of sight [...]'.¹⁴¹ With reference to the Portland quarries, it might be possible to suggest an addition to this; that, in looking at these big, dusty voids and debris, it is possible to generate images of architecture over the emptiness and to trace in the absent blocks of stone.

Centuries of quarrying have left Portland's landscape scarred by dislocation and absence and the repeated gnawing away of the stone means that the island is in a state of perpetual change. This instability is further demonstrated in the geomorphology of the island, where the limestone cliffs can break away, causing coastal collapse – an edge that is as uncertain as it is unstable. The exploration of concepts of absence and collapse trace a thread of uncertainty, disruption and catastrophe through early theories of natural philosophy, geology, history and architecture to contemporary ideas of place and site. By following Portland stone as a material and a place created the means of retrieving the history of architecture and re-inserting it into the specific location of Portland, making experimental connections between architecture and the material of stone.

¹⁴⁰ Kant, *Critique of Pure Reason*, p. 158.

¹⁴¹ Carter, *Material Thinking*, pp. 55, 58.



3.21 Stones,
Independent Quarry,
Portland.
Photograph,
Jane Madsen

3.22 Independent
Quarry, Portland.
Photograph,
Jane Madsen



Chapter Four

Film poetics: material and spatial practice[s]

Part 1 – Experimental film

The thinking and making of my practice can be characterized as a poetic filmmaking of collapse. The initial aim of my film practice in the early stages of this research project was to develop, work with and demonstrate a visual equivalent or manifestation of the concept of collapse originating from reading Kleist. This has been achieved through working with the idea that the materiality of collapse as a poetic is visual, literary, historical, spatial, architectural and philosophical, and that making films and videos is a constituent component of that interdisciplinary practice. The concept of collapse is intellectual and material. This is especially so since Kleist's observation of the arch as a concrete object which may imminently or eventually collapse is based on the material properties of the stones, whose qualities mean that they may all collapse together. The discussion of the practice is placed at the end of the thesis because it is fundamental to the thinking of uncertainty and collapse. The experimental practice synthesizes the philosophical and historical inquiry.

The initial visual research began with exploring architecture and film, and this progressed to the recollection of a visit to the island of Portland in Dorset in 1999. Portland is a place where a sense of precariousness and collapse pervades the island. What was so striking about Portland as a site, was that the landscape was one of disruption and collapse. On the surface this seemed to be so because the centuries of quarrying Portland stone have left the island in a state beyond regeneration, but also this precariousness is inherent in the nature of the limestone itself, which makes the cliffs unstable and likely to collapse. The poetics of collapse in the quarries and on the edges of the island lies in the unceasing potential for change through the removal of the stone or coastal collapse. In my creative research, I have looked at the spaces where Portland stone has been taken from the landscape, investigating the site as a multi-faceted starting point for material histories, and have interrogated absence as architectural formation. In the course of the practice I have worked at and with this site. In this chapter I consider the origins and development of my own practice as a filmmaker and think about the material of celluloid film itself as a disappearing technology in danger of collapse. Away from the island, reading these histories led not only to the style of research I have previously undertaken for making documentaries, but indeed the methodology of collapse found in the histories of Portland and its stone was also part of the analysis of natural philosophy, geology, geography, architecture, and space.

1. The collapse of film and the end of mechanical reproduction

Motion picture film was first put through a camera and projector in 1895,¹ and as art, experimental film, documentary or popular narrative form *film* as material, practice and culture has been the medium that defined the twentieth century. And now we are witnessing its collapse. Film is teetering on the brink of collapse. During the time I've been researching this project I've seen the demise of the material of film. It is unexpected and surprising, and I am more disheartened than I could have imagined; perhaps I did not see it coming.

Kodak² has been liquidated. This seemed a startling turn of events, since it has been the most powerful and iconic name in the film industry. Buying a roll of Kodak film meant that most people could have a relationship with film, with the means of recording and observing the world around them through their 'Kodak moment' (as the slogan said). This material of the twentieth century made up many personal and family archives in the form of black and white or colour negative or as reversal slides, exposed to light through cameras, from the box brownies of the 1920s and thirties, to the instamatics of the 1960s and 1970s, and the compact cameras of the 1990s, and the rolls of Super 8, 16 mm and 35 mm movies by the amateur or the professional. Packed in the distinctive chrome yellow and red boxes and cans, Kodak seemed ubiquitous, its characteristic logo at every tourist attraction and high street. Now the Kodak moment seems to be passing. Other companies that produced film stock have already gone – Agfa the West German film and, as of the end of 2012 Fuji, the Japanese company that promised to maintain its film division, has stopped making moving image film stocks. During this time I have also seen the end of the film laboratory Soho Images – the lab that did so much to support artists' film – taken over by an American company who have phased out film processing and printing; it was the subject of a campaign to defend it led by Tacita Dean.³

Film is an elegant mechanical technology of precisely measured intervals of material and time – not so much as the increments of space between frames but the sprocket holes engineered to locate the frame so that the film may firstly be exposed to light as it goes through the camera, then the editing bench and finally through the projector. Film appeared at the end of, or could be seen as the culminating technology of industrialisation. The majority of Walter Benjamin's 1936 essay, 'The Work of Art in the Age of Mechanical Reproduction', is devoted to film, and while Benjamin is impressed by the scope

¹ August and Louis Lumière *La Sortie de l'Usine Lumière a Lyon* 1895.

² The Kodak name was registered in 1888 and the Brownie camera was introduced in 1900.

³ Tacita, Dean, *Save this Language*, (BBC Radio 4, 17 April 2014) <<http://www.bbc.co.uk/programmes/b040llzm>>

for photography, he is really captivated by motion picture film, his argument is primarily located in and about film – of how film can reproduce and transmit art:

[...] nothing is more revealing than the nature of the repercussions that these two different manifestations – the reproduction of works of art and the art of the film – have had on art in its traditional form⁴

Even though Benjamin mainly discusses narrative film, there is much that can be applied to the use of film by artists. He goes on to say:

[...] for contemporary man the representation of reality by the film is incomparably more significant than that of the painter, since it offers, precisely because of the thorough going permeation of reality with mechanical equipment, an aspect of reality which is free of all equipment.⁵

Benjamin explores the capacity of film to approximate reality via the mechanical apparatus of the equipment and its capacity to document reality. Significantly, however, in relation to art, Benjamin does not suggest that there should be an end to painting, nor is there any suggestion that manufacturers like Windsor and Newton, for example, should stop making paint or other fine art materials. Rather, at the time it was written in 1936, it was more an argument that the technologies of art and film could exist together.

Benjamin's comment seems to have much to say for artists who took on the possibilities of the new mechanical technology of film, not only to 'represent' their 'environment' but also to question movement and time, and experiment with the limits and possibilities of the material of film itself as a technology. For artists in the early twentieth century film was a new medium, which rapidly became part of modernist art practice; for example, less than thirty years after the advent of film, Robert Wiene made *Das Cabinet des Dr. Caligari* in 1920,⁶ Man Ray made *Le Retour a la Raison* in 1923 and Ferdinand Leger made *Ballet Mechanique* in 1924. These are films in which artists explore the possibilities of the new medium of film as the camera and the subjects move, and the language of duration and movement is articulated in intriguing

⁴ Walter Benjamin, *Illuminations*, ed. and introduced by Hannah Arendt, trans. by Harry Zohn (London: Fontana, 1982), p. 222.

⁵ Ibid. p. 294.

⁶ Robert Wiene directed because the two writers, Hans Janowitz and Carl Mayer, were considered too inexperienced to undertake such a production. Nevertheless, Janowitz orchestrated the look and style of the film by suggesting that the painter Alfred Kubin design the sets. See Siegfried Kracauer, *From Caligari to Hitler: a psychological study of the German film* (Princeton: Princeton University Press, 1974), 'Caligari', pp. 61–76.

ways. In Man Ray's film these abstract and animated images are based on his 'rayographs' and shots of a body in motion. Leger's longer film *Ballet Mécanique* explores movement and time, and with the repeated framing of eyes and faces observes what this new technology means for looking, while his use of the in-camera techniques of double exposure questions how the medium can work with ideas about doubling. Yet, these films were made more than a decade before Benjamin wrote 'Art in the Age of Mechanical Reproduction' and show how artists were already working with film materially and conceptually.⁷ By 1926 filmmaking had reached modernist literature as the central theme in Pirandello's novel, *Shoot*. Art was combining with film itself, for example through artists working directly onto the surface of film itself by painting, drawing and scratching, as in Len Lye's *Colour Box* (1935), and cheating reality using simple in-camera techniques of double exposures, stop motion and jump cutting as in Luis Buñuel and Salvador Dalí's *Un Chien Andalou* (1929). This starts to subvert Benjamin's notion of the aura of the artwork because film itself has turned into the artwork, albeit one that is now repeatedly reproducible through the mechanics of printing. Benjamin notes:

The characteristics of the film lie not only in the manner in which man presents himself to mechanical equipment but also in the manner in which, by means of this apparatus, man can represent his environment.⁸

Perhaps, it could be added to Benjamin's perspective that this potential to represent the environment could also be determined by the artists creating and using it. Nevertheless, all of these figures, from Benjamin to the mentioned artists who were working with film, demonstrate a real pleasure in the material and mechanics of the medium.

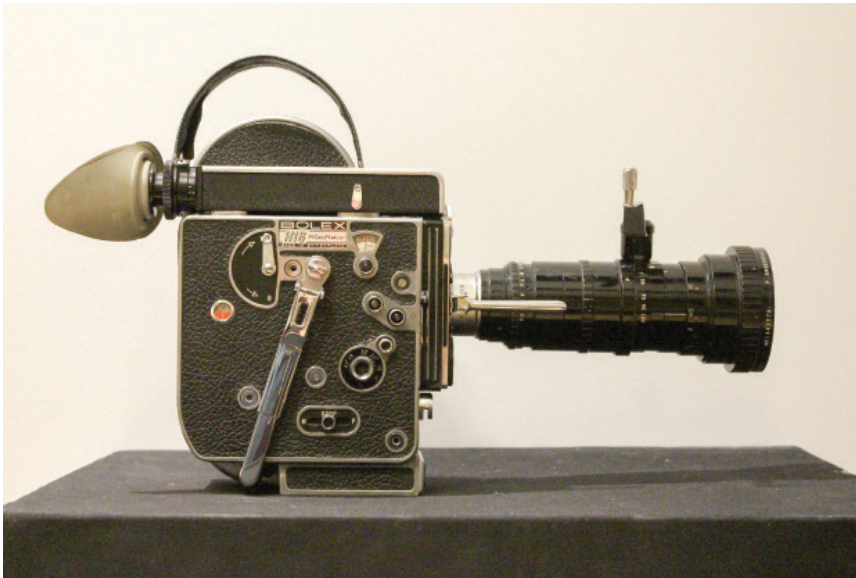
But now in 2015, I have an uneasy sense that film as a viable material for making work is slipping through my fingers. Though there are a few laboratories processing and printing film, as a practice it is becoming obscure and arcane. Is the end of film as the medium the twentieth century now defined as a marker for the end of the twentieth century? Just because it is possible to go to the cinema, turn on the TV or download videos, seeing contemporary moving image does not mean that the audience is seeing *film* as material. There is a slippage of language at work: film is the celluloid (previously nitrate) material that goes through a camera and is processed, edited, printed and projected. Fewer and fewer audiences see film in the cinema as it is so rarely shown, but rather the digital approximation of it.

⁷In Luis Buñuel and Salvador Dalí's *Chien Andalou* (1929), and Jean Cocteau *Le Sang d'un poète* (*The Blood of the Poet*) (1930) in-camera techniques were used to play with reality, of what it known and remembered. See: *Film as Film: formal experiment in film 1910–1975*. Hayward Gallery, South Bank, London, SE1. 3 May – 17 June 1979. Arts Council of Great Britain.

⁸Benjamin, *Illuminations*, p. 237.

2. Avant-garde practices and the Bolex aesthetic

My film practice developed with reference to the legacy of three tendencies of experimental and avant-garde film. Firstly, the experimental films made by artists; in particular, the work of from the 1960s and 1970s by such artists as the Americans Jonas Mekas,⁹ Joseph Cornell, Maya Deren, Andy Warhol, Stan Brakhage, Kenneth Anger; in Britain, Margaret Tait, Chris Welsby, Nicky



4.1 Bolex H16 Reflex
16mm camera.
Photograph, James
Swinson

Hamlyn, Derek Jarman, Jayne Parker and Isaac Julien; in Australia, Corinne and Arthur Cantrill, and Ross Gibson. All these filmmakers made work using a Bolex 16mm camera (even if they subsequently made work using other means of production). Secondly, the radical European film movements: the New German Cinema, including such filmmakers as Alexander Kluge, Jean-Marie Straub and Danièle Huillet; the French New Wave of Jean-Luc Godard's 'Dziga Vertov' period; the Italian neo-realists, in the work of Michelangelo Antonioni. Thirdly, the experimental and poetic documentaries of the GPO and Crown film units of the 1930s and 1940s, especially that of Len Lye and Humphrey Jennings; and in the American Direct Cinema of the 1950s and 1960s; in the essay style documentaries which came out of the British Film Workshop movement of the 1970s and 1980s, such as Sue Clayton and Jonathan Curling's *Song of the Shirt* (1979) and John Akomfrah's *Handsworth Songs* (1986).

The visual aesthetic of experimental film by artists was determined by the Bolex camera, the Swiss wind-up clockwork 16mm camera. The Bolex was the

⁹ Jonas Mekas has been a regular visitor to London, especially to the London Filmmakers Co-operative. On 19 July 2008 Jonas Mekas presented his work at the Cuzon Soho followed by a question and answer session. In 2013 the Serpentine had a exhibition of Mekas's work, which was shown as poorly installed digital moving image; at the same time the BFI Southbank held a retrospective of his works shown as film.

cornerstone of experimental film at the New York Filmmakers Co-Operative, the London Filmmakers Co-Operative and elsewhere. A hallmark of this kind of filmmaking was work that was painterly and intuitive and imbued with the poetics and politics of 'poor art'.¹⁰ In his handbook on filmmaking, the classic text for experimental filmmakers, Lenny Lipton says of the Bolex:

[...] I don't know if there would have been an independent filmmaking movement without this camera. There is no other machine at such a comparatively low price with so many features and so much quality.¹¹

The Bolex camera runs on a wind-up spring mechanism; it is possible to set the running speed to 24 frames per second, but this is not absolutely precise, since this is not a sound camera.¹² The longest each shot can run is approximately 28 seconds, and the inaccuracy of the Bolex refutes accurate measurement. Additionally, the Bolex can shoot single frames and therefore has been used for animation for decades; currently it is still used to film experiments in science labs, as it can be mounted on to a microscope. The film is driven through the Bolex camera by the wind-up mechanism and there is slight movement or drift in the gate as the film passes through the shutter, which has also contributed to the aesthetic. It is possible to wind the film backwards and double or triple expose it, and to make rudimentary fades to black in the camera. These elements, based on a lack of total control, add up to a fundamental principle of many artists' experimental films – that of the unforeseen, where the filmmaker courts disaster in order to reach the unexpected, the glorious accident. It is something that I am interested in as a poetics of collapse. The conditions of the accidental are also the case in optical printing, a technique of copying film to film where on one side is a projector and the other side is a camera, usually a Bolex, where it is possible to copy film frame by frame, but also to change the running speed of a shot, to stretch a shot and to slow it down or speed it up, to skip and stretch; for example, to copy every fourth frame nine times, or to put in different coloured gels into the projector, and where the best work comes about by not being prescriptive but making decisions on the fly while standing in the dark exposing 4000 frames of film. The whole point of the accidental is that it cannot be programmed; for example the attempts to put film-like scratches on digital moving image by programming them into final cut or premiere never looks good – they are too precise, mathematically determined and consequently contrived. In these processes, and in the aesthetic of the Bolex, I can read the concept of collapse, where the accidental and the

¹⁰ See Germano Celant 'Art Povera' in Charles Harrison and Paul Wood, eds., *Art in Theory 1900–1990: An Anthology of Changing Ideas* (Oxford: Blackwell Publishers, 1993), pp. 886–89.

¹¹ Lenny Lipton, *Independent Filmmaking*, introduced by Stan Brakhage (New York: Simon & Schuster, 1972), p. 129.

¹² A sound camera is silent, with precision running speed – so it is possible to record sound and sync it to the film. The main sound camera I have worked with is the Arriflex SR11.

unexpected are incorporated in the ideas and the experimental processes.

The majority of this work and the aesthetic of the Bolex are linked by a sense of exploring the language of experimental film as one of poetics. Jonas Mekas, Joseph Cornell, Stan Brakhage and Margaret Tait have all used film specifically as a medium for visual poetics. Mekas, who was well reputed as a poet in Lithuanian, stated that he began to make films because when he arrived in New York his English was not good enough to write poetry.¹³ Cornell had a life-long fascination with film and got filmmakers to shoot film for him, directed to designated locations, collecting places and the experience of wandering the streets of New York, creating found footage, in much the same way that he collected material for his boxes. In *Aviary* (1955) Cornell refers to 'Emily D.' – Dickinson was a significant figure for the development of Cornell's poetics; Emily Dickinson wrote a series of poems called 'Aviary'. In Edinburgh, Margaret Tait was associated with the group of artists and writers around the poet Hugh MacDairmund, and she made a film portrait of him in 1964. A sense of materiality and poetics ran through the work of Stan Brakhage, and is also present in Chris Welsby's time-lapse films, where he experiments with landscape and time, and also in the material architecture of Nicky Hamlyn's work. This sensibility is repeated in dozens of examples, where the poetics of each such film both makes up its own rules and subverts what has gone previously, as noted by Raul Ruiz:

I am interested in films which, wherever they occur, are in some sense unique. [...] But the main principle has nothing to do with craftsmanship, because the purpose is to make poetic objects. The rules you need to understand these poetic objects are unique to each film and must be rediscovered by every viewer; they cannot be described *a priori*, nor *a posteriori* for that matter. In short, these are films that cannot respond to the question, "What is this film about?" [...] what matters are the magical accidents, the discoveries, the inexplicable wonders and the wasted time.¹⁴

3. Editing

I came to filmmaking firstly through writing then editing. As a student used to writing, I helped friends at film school with their treatments and scripts. My intervention was at the beginning of the process of filmmaking and again at the end, when I became interested in the editing of the films and realised that

¹³ Mekas talk, Curzon Soho 19 July 2008. See also: Scott MacDonald, 'Lost Lost Lost over *Lost Lost Lost*', *Cinema Journal*, Vol. 25, No. 2 (Winter 1986), 20–34. [accessed: 21 May 2013] <<http://www.jstor.org/stable/1225457>>

¹⁴ Raúl Ruiz, *Poetics of Cinema*, trans. by Brian Holmes (Paris: Éditions Disvoir, 1995), pp. 76–77.

film editing was another form of writing. Through this process I learned that writing could be material, visual, aural and temporal. On film productions I have never liked the actual shoot – they are the public space of filmmaking of being out with the crew, the actors, or the subjects of the documentary or whatever was being shot, where the delineation of roles is often defined by gender and the performance that goes with it. Locations (and studios) are performative spaces. In the past, I enjoyed being around experimental film events at the LPMC, where expanded cinema became performances breaking out of the two-dimensional screen. However, I have tended to work alone, or in small collaborations, and found the best part of experimental or artists' filmmaking is that there are so few people involved. Setting up a shot for any film camera, including a Bolex, takes time because of the need for judgment about framing lighting, requirements of the shot and so on, and the shot may be less than half a minute long. Digital video tends to generate vast amounts of unmediated material, therefore taking a great deal of time to edit. While my camera skills are acceptable, in the past I have had the chance to work with a really intuitive camera operator, which was rewarding. The fascinating aspect of filming is seeing the location or the shot and the sense of collecting material to take away and cut up, edit, reform, or rewrite.

In editing there is the real handling of the material of film. The cans come back from the lab - the rolls, takes, shots need to be logged and the images numbered and identified, the clapper boards noted and the edge numbers printed through from the negative recorded. When the film has just been processed sometimes the harsh irritants of the chemicals come off with handling. Nevertheless, I always liked the smell of the photographic chemicals from the freshly processed and printed rolls of film as they come back from the laboratory, transformed by developing and printing. The film is carefully logged and each shot noted, so that in the cutting room each shot or scene must always be able to be found at a moment's notice. So from sometimes thousands of feet the editor needs to be able to find a shot that is perhaps only 2', 5' or 10' long. My experience of editing led me at times to feel that the editor was a kind of librarian of the images. The editor looks after and maintains the archive of images collected from every shoot and each location and through repeated viewing of the film gains a visual memory of all the footage. But this is an active relationship, as the editor cuts the film up and re-makes and re-writes the ideas set out in the treatment or script – working not with the intention of what was in the mind or imagination of the writer/director, but in the reality of what material there is to work with, of what has actually been recorded and shot on film, of making something from what you have in the cutting room. In editing there are countless decisions, from selecting the exact moment when the shot should start or end, the timing and pace of the film and the counterpoint of putting one shot against the other; Eisenstein identified in his theories of

montage '[...] the juxtaposition of two separate shots by splicing them together resembles not so much a simple sum of one shot plus another shot – as it does a *creation*.'¹⁵ Each of those decisions is a departure point, and can change the film, especially so in films where they are not pinned down by the conventions of a mainstream narrative script. Editing creates a system of writing in time or writing with time, where considerations of duration and movement and how best to show the place, action or transitions determine the aesthetics, meaning and construction of the scene or the film.

Editors sit in dark rooms very often on their own (depending on the scale of the budget, there might be editing assistants) working with and assembling the material. It has been a job very often done by women; this may be because it lacks the apparent glamour and urgency and drama of the film shoot. It requires patience and working in sections or scenes or fragments of a whole, and takes time to see the results of the work. It may have been that the editor was seen as the person who has the capacity to realise and fulfil the vision of the (male) director; hence the job fell to women. And, in more recent times it was because in mainstream film and television industry production the (largely) masculine roles of the camera, grip, sound, and lighting, and so forth, negotiated considerable overtime payments through their unions, but editors did not get paid proper overtime rates.

In Dziga Vertov's *Man With a Movie Camera* (1929)¹⁶ the reflexive quality of the film is created not just by showing Vertov carrying the film camera and tripod around Moscow, setting up shots and rolling the camera in exciting and dangerous locations, but also through the editor, Yelizaveta Svilova's¹⁷ hands carefully and quickly cutting and arranging the strips of film as she sits in the darkened editing room. Svilova's role as editor discloses the secret space of the construction of the film. About a third of the way into the film the images suddenly stop moving, strips of film are frozen and revealed; as the camera frame widens, the viewer gains entry into the secluded room of the editor and sees the frames of film being deftly cut with scissors, then arranged and assembled – it is the most direct instruction and revelation about how a film is made and constructed that Vertov and Yelizaveta Svilova could have offered.

¹⁵ Serge Eisenstein, *Film Sense*, trans. and ed. by Jay Leyda (London: Faber, 1968), 'Word and Image', pp. 13–59, especially pp. 17–20. Montage theory is based on concepts of how a film is assembled and constructed in the editing process.

¹⁶ *Man with a Movie Camera*, dir. Dziga Vertov (VUFKU, Moscow, 1929. Film, 68 minutes) is a portrait of a day in the lives of the people of Moscow. It opens with the audience arriving to the cinema, and as such it is a film about the people who are watching it.

¹⁷ Yelizaveta Svilova (1900–1975) began work in the film industry at the age of 14 as an editing assistant for Pathé Moscow and in 1918 became editor for features at Goskino. She began working with Dziga Vertov in 1922 at Cinema-Eye, edited the *Kino Pravda* series, and became his principle editor, and also assistant director. She married Dziga Vertov in 1924.

Later in *Man With a Movie Camera* the editing is allied to the factory, to the interior space of women's industrialised labour; it is visually and graphically matched and intercut with scenes of women as sewing machinists, weaving yarn and packing cigarettes in factories – the dexterity and deftness of the women's work is linked with the spooling and assembly of the film and the work of the editor.¹⁸ The work of Esfir Shub offered a third perspective on the role of the editor and on theories of montage in Soviet avant-garde filmmaking. Shub worked with existing documentary films as (found) footage re-editing and reconstructing using montage principles to change the political interpretation and meaning of the material. Shub identifies the power of the editor by eschewing the primacy, control and construction of the space in front of the camera. She entered the debates concerning documentary and asserted that the meaning and construction of a film lay in the way it was edited.¹⁹

A later political collaboration was that of Jean-Marie Straub and Danièle Huillet, who were part of the 1960s radical left filmmaking in Germany known as the 'New German Cinema', along with Alexander Kluge and others. Their work comprises political and spatial inquiries into history through the places, sites and territory where history is made. Straub and Huillet were always seen as a strict collaboration, their credits saying: a film by J-M Straub and Danièle Huillet, and generally referred in shorthand to by writers and critics as Straub/Huillet. An insight into their working methods was demonstrated by Pedro Costa in his documentary about them *Onde jaz o teu sorriso?* (*Where does your hidden smile lie?*) (2001). In their film work Straub was the camera operator and Huillet was the editor²⁰ and both were the producers and directors; their roles were carefully delineated and documented, and this collaboration of demarcated roles was strictly equal. In his film, Pedro Costa shows Straub and Huillet at work editing. Huillet is patiently and carefully

¹⁸ In mainstream narrative film, there has been key women editors. Alma Reville (1899-1982), Alfred Hitchcock's wife, was a film editor established in the film industry before him. For a substantial part of his career, Hitchcock and Alma worked collaboratively and she always had the final say or the last look at the editing of his films, even noticing that the shower scene in *Psycho* needed frames cutting from it. Martin Scorsese has worked with his editor Thelma Schoonmaker for decades; she has edited every film of his since *Raging Bull* in 1980. Schoonmaker has been working in film since the 1960s.

¹⁹ Esfir Shub (1894-1959) contributed to a discussion recorded in *New Lef*, No. 11-12, 1927 extracts in John Ellis, ed., *Screen Reader 1: cinema/ideology/politics* (London: SEFT, 1977), pp. 310-11. See also, Esther Leslie, 'Art, documentary and the essay film', *Radical Philosophy*, 192 (July/Aug 2015), 7-14. <rp192_dossier_essay_film_leslie_art_documentary_essay_film.pdf> [accessed: 15 July 2015]

²⁰ See Jane Madsen, *Cutting Through the Seventies to Find the Thirties: A Consideration of 'Fortini-Cani' as Marxist Reflection* in T. O'Regan & B. Shoesmith eds. *History on/and/in Film*. Perth: 1987. pp. 159-65; <mcc.murdoch.edu.au/ReadingRoom/hfilm/content.htm> See also film Pedro Costa *Onde jaz o teu sorriso?* (*Where does your hidden smile lie?*) 2001. A film about Straub and Huillet working together, principally in the editing room. Further: on Danièle Huillet <<http://www.guardian.co.uk/news/2006/oct/18/guardianobituaries.france>>

editing their film judiciously removing frames and making the logic of the shot and scene work, while Straub is grumpy and impatient and mistrustful – their exchanges become more forceful until Huillet gives an account of how they have always worked. On the whole, women's role in editing is a largely hidden history; it is underwritten, and unrecorded in a coherent history.²¹

My role as an editor was consolidated through an offer of training as an assistant film editor for documentaries made on 16mm film by the state film council, Film Victoria, who at the time made a number of sponsored documentaries. This scheme was the means of gaining union tickets for young filmmakers in various production roles in what was a relatively closed shop. I was also involved in the political activism around independent film, of the kind that went around so many cultural activities in the mid-1980s. Later, I was the principal editor on a collaborative essay documentary made as a critique of the celebration of Australia's bicentennial in 1988: *First Time Tragedy, Second Time Farce* (1989). As with many documentaries, especially those in essay form, the film is made in the editing, where the editing process writes the film, as it were. It was through my experience as an editor that later I got a job at the London Filmmakers Co-operative, because as visual artists most of the members were very adept with the camera, but less so at editing and sound editing.

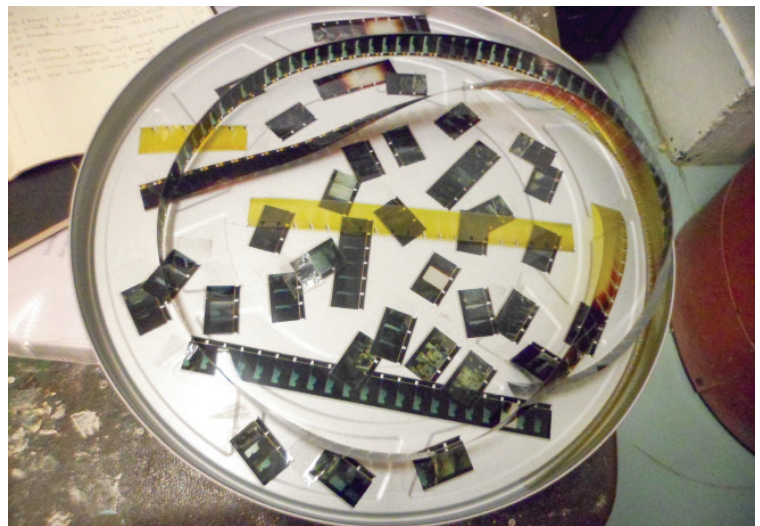


4.2 Steenbeck
1601,
flatbed editing
bench.
Photograph,
Jane Madsen

²¹ See for example Kuhn, Annette. *The Women's Companion to International Film*. London: Virago Press, 1990. The two pages on editing, pp.132–33, mainly describe editing rather than identifying whom actually does it.

In the development of digital editing, the architecture of the non-linear editing software of Final Cut, Avid, and Premiere was based on the architecture and language of the cutting room; their terms are the same and simulate a real place. While this was designed with editors in mind and, more particularly, those who were already working in film in order to effect a seamless transition into digital editing, the programmers who wrote such software would have had to spend time in analogue cutting rooms in order to find out what editors did. In doing so, the language of the material film and the space and ordering of the cutting room have been colonised. The transformative quality of the chemistry, the alchemy of film in the laboratories of the analogue, has been replaced by digital simulation, where the digital screen is a barrier against a material, hands-on experience.

Measurement is a repetitive process in all aspects of film and photography: light is measured, focal length is measured, footage is measured, and the amount of film exposed for each shot is measured. Editing means constant counting: of the 40 frames which equal 1 foot, or the edge numbers on the negative which appear every 20 frames, or the projection speed of 24 frames per second. The small off-cut fragments of 1, 2, or 3 up to 6 frames of film are usually kept taped inside the lid of the can of the roll from which they were pulled. The out-takes are hung up on the trim bin, then filed away in correct order on the rolls, back in their cans, ready to be referred to for review or addition into the film. In editing every frame of film in or out of the final edit must be accounted for in the final preparation from the negative cutter to the laboratory, including ensuring that there are enough frames for visual effects such as dissolves and fades to black, and are all counted (and invoiced) in numbers of frames. Editing taught me a great deal about how ideas on film, and in writing are generated and nurtured, that nothing is written or made without editing. For me, editing is a reflective practice of thinking, experimenting, making and assembling material as time and movement.



4.3 Film can with 16mm trims.
Photograph, Jane Madsen

4. Site: place, space, landscape

In their introductory essay to *The Iconography of Landscape*, Cosgrove and Daniels note that Ruskin was the first art critic to contemplate the tradition of landscape painting. They argue that Ruskin treated 'landscape as a text'.²² This is a useful descriptor here, as I believe that has been an aspect of my practice, and this relationship to reading landscape and space is a further indicator of my filmmaking as a reflective practice. The question of landscape is neither neutral nor easily reconciled; however, the uncertainties of landscape can be addressed through the poetic of collapse. Landscape questions both previous pictorial formations in art and philosophy, and also landscape as place, history and territory.

Landscape has long been part of the visual poetics of artists' film particularly in the convergence of documentary and experimental lyricism from the GPO films of the 1930s onwards. Across experimental and independent film, I was particularly interested in the poetics and politics of the Cantrill's experimental films shot in the bush, and Ross Gibson's film *Camera Natura* (1986), which questioned the historical myths of landscape in Australia as it was represented and constructed through white, European colonization. The question of how to deal with landscape has been a thorny issue for Australian artists, since it involves the implications of colonization, guilt, the histories of contested terrain, displacement of indigenous peoples, as well as a sense that there is nothing much else *but* landscape in Australia. However, increasingly there is now a more nuanced relationship to how to confront and address the complexities of a relationship to land and landscape since the explosive politics following the bicentennial in 1988.²³

The process of practice-based research has meant that, while my practice evolves, an aspect of the research led to the inevitability of an overview of my previous work. In doing so, it has been possible to gain insights into my interdisciplinary practice in experimental film and video, installation and documentary, clarifying the main recurrent themes as: home, place, space, territory, landscape, absence, duration, literature and architecture/s. These are linked with an overarching sense of materiality that is specifically spatial and the recognition that the poetic of collapse is a facet of my films and videos. This is present in previous work including, for example, the documentary *First*

²² Denis Cosgrove and Stephen Daniels, *The Iconography of Landscape: Essays on the Symbolic Representation, Design and Use of Past Environments* (Cambridge: Cambridge University Press 1997), p. 5. They note that this is further expounded in Ruskin's *Modern Painters* 1843.

²³ See for example Ross Gibson, who has written extensively about the fraught relationship of landscape and its representation in art, film and language. Ross Gibson 'Camera natura: Landscape in Australian feature films' *Framework* 22/23 (Autumn, 1983). pp. 47–51.

Time Tragedy, Second Time Farce (1989), considered history as the politics of contested territory in the celebration of the 1988 bicentennial of Australia's colonization and opposition by indigenous peoples; and in the experimental works *Home* (1994), optically printed 8 found footage to 16mm where home is archive and place; *Hercules Road* (1999), which depicted the space of street in Lambeth where Blake lived from 1792–1799 as the place where poetry was made; the film *London Stock* (2002) a material consideration of bricks; the film *Elephant Steel* (2009), which experimented with gyratory movement and the reflective surfaces of the Faraday monument; and the videos *The Knowledge* (2001), a three-part work considering habitat and the city; *Rum Jelly Collapse* (2002), which depicted a short passage from Lampedusa's *The Leopard*; and *Venetian Drift* (2003), which explored movement around the sites of the biennale.

Interdisciplinary thinking and practices are the foundation of my filmmaking. This approach has always involved research into the minutiae of subject and location. This process came from my experience of working in documentary, which involved considerable research into the history and background of the subject, which then formed the treatment of the film, since there is no script as such in documentary. This became the way I developed experimental films; this method is different to the way other friends and colleagues make their experimental work. The early visual research for this project considered material and spatial thinking in previous experimental filmmaking, especially those focusing on space, landscape and architecture. This progressed to the recollection of a visit to the island of Portland in Dorset in 1999, where what was so striking about Portland was that the landscape was one of disruption and collapse. Yet, because of the material of Portland stone, this landscape was both created and destroyed – a constructed environment that could be read as collapse through site, space, art and architecture, but one with a visual uniformity because of the material of the stone itself.

The stone at Portland also made a link to the materiality of the very stones cut to make the arch of Kleist's metaphor, and that the material was from a place. Even though the stones of Kleist's arch were clearly not from Portland, they were made from architectural stone from somewhere. And, further the stones to which Kleist is referring had to be cut and prepared by stonemasons, each stone made to fit the construction of the arch, so the stones could remain standing, held in place as collapse. The cutting of each stone block and preparing it for the arch, and putting it in its correct place had a correspondence with film editing through the idea of cutting and fitting material together to make a greater whole. Further, this concept of cutting and preparing stone could also trace back to Adrian Stokes's essay²⁴ about

²⁴ See Adrian Stokes, 'Carving, Modelling and Agnostino' in *The Stones of*

the difference between the acts of carving and modelling in sculpture, where in preparing the stone the stonemason carves away the excess and unwanted stone.

As far as possible I have tried to have an immersive relationship to the site, of being there and allowing Portland to seep into conscious and unconscious formations. In doing so, I found more and more connections between the site and the period of time from the middle to the end of the eighteenth century, when Europe was in a state of chaos and collapse. In this sense Portland as a small island of a little less than 4.4 square miles became a kind of situated laboratory for thought, philosophy, history, and visual and architectural practices. This landscape is comprised of quarries dating to the seventeenth century; it is a site that is constantly changing – that its basis is one of uncertainty, that from one visit to the next it has changed, since increments of its stone disappear as it collapses from the cliffs or is quarried away. This sense of uncertainty has connections with Kleist's writing, and also with that of Kant's critical thinking.

Through the experience of being at the quarries at Portland I have begun to look at landscape differently, so that it is less a two-dimensional, horizontal vista as far as the eye can see and has become one of volume and layers, vertical densities; of thinking about the geography and geology of what lies beneath, and the uncertainty of what may happen when it fails as collapse. I have wandered the landscape of Portland and worked with the spaces and material as a poetics of collapse. After spending so much time at Portland, I can see the island in the architecture of London. There have been other connections and resonances of working down at Portland: the whiteness of the stone captures light and causes it to bounce around the environment – in the summer, when the sun is out, the harshness of the light and the dry aridity of the quarries is reminiscent of the landscapes of familiarity. But also, it reminds me of films I have researched previously, such as Straub and Huillet's *Geschichtsunterricht* (*History Lessons*) (1972), filmed in and around Rome, or their *Moses und Aaron* (1974), which used remote locations in southern Italy. In the work I made at Portland, I have represented the quarries as sites devoid of people, as sites for contemplation; this was also the case in *Hercules Road* where the street was emptied of people in order to emphasize the spatial poetics.

After the majority of the filming was completed, ways of looking at and filming the Portland quarries were further confirmed when I read Robert Smithson's account of a trip to quarries in New Jersey:

Rimini (New York: Schocken Books 1969) pp.105–66

Smithson's observations of the quarry are suggestive of imminent collapse. In August 1969 Robert Smithson and Nancy Holt made a trip to England and Wales. The visit was significant, as it added an intriguing dimension to Smithson's work. During their trip they spent time visiting historic and material landscape sites including Stonehenge, Avebury and Silbury Hill, Cerne Abbas, Pentre Ifan and quarries in Wales, Dorset, and Oxted Chalk quarry in Surrey, as well as landscape gardens. The sites were carefully chosen and researched in advance, and particularly demonstrated Smithson's longstanding interest in geology, materiality, and landscape. In an interview in 2012, the artist Nancy Holt, Smithson's widow, spoke of their visit to England and Wales in 1969. She observed that Smithson was:

[...] fascinated by quarries, and took great interest in geology and palaeontology – just south of the Oxted quarry dinosaur remains were unearthed in the early nineteenth century.[...] He also loved geological survey maps. We had some with us, so he would know where to find the kind of stone and earth foundations he was looking for.²⁶

While he was in Dorset, Smithson continued the 'Mirror-travel' concept, which had begun with the nine *Mirror Displacements* in the Yucatan in April 1969.²⁷ The two pieces were *Mirror Displacement (Chesil Beach) 1969*, where the mirrors were located among the pebbles; and the second in a quarry on Portland (Fig. 4.4), which was shown a short time later in *Prospect 69*.²⁸ The representation of *Mirror Displacement (Portland Isle, England 1969)* in the exhibition catalogue shows a grid of images depicting seven identically framed photographs with upright mirrors added one by one to the vertical bank of dumped debris in a disused quarry. The significance of this version of the *Mirror Displacement* is the inclusion of the map of Portland. This explicit reference to Portland is contrary to the anonymity of Smithson's previous works. The specificity of place is something that Smithson deliberately avoided representing; many of his works were developed around the concept of 'non-site'. Even though Smithson had interest in particular places, documenting actual locations was usually not part of the work. It is probable that Portland would have held a twofold interest for Smithson because of the industrial landscape of its quarries and its significance in the history of geology and

²⁶ Nancy Holt Interview. Simon Grant, 'Notes from An Ancient Island', *Nancy Holt Interview, Tate Etc.* Issue 25 (23 May 2012) 97–103. (p. 98). See also 'Robert Smithson's Library' in Ann Reynolds *Robert Smithson: Learning from New Jersey and Elsewhere* (Cambridge, Massachusetts, 2003), which included a considerable amount of material on geology, and geological history, mining, maps, and on Britain.

²⁷ Robert Smithson, 'Incidents of Mirror-Travel in the Yucatan' *Artforum* (September 1969). Published as photographs and essay. Reprinted in Smithson *Robert Smithson: The Collected Writings*, pp.

²⁸ The exhibition *Prospect 69* was 30 September to 12 October in Dusseldorf at the Städtische Kusthalle.

geological mapping of the Jurassic coast. Later versions of the Portland *Mirror Displacement (Portland Isle)* (1969) broke up the grid and removed the map but, in this form, the work indicates how the brief expedition to England and Wales suggested a departure for Smithson and shows his captivation with the weight of material histories of place.²⁹

The concept of displacement in the *Mirror Displacement* works implies a quality of movement or disruption, and is a condition of the sites that Smithson chooses. The pebbles of Chesil Beach are in a constant state of flux, and the outcome of quarrying causes constant displacement through the removal of the stone and the unsecured walls of the (unnamed) Portland quarry that remain; in the displacement the mirrors reflect and create a commentary on this. Holt describes Smithson's approach:

This *Mirror Displacement* was at Chesil Beach. It consisted of eight mirrors that reflected the rounded rocks and pebbles, while capturing the light in a glowing way. These works have become much more significant than even Bob anticipated at the time. Back then we used an Instamatic camera and shot our slides with Kodachrome film. It is interesting to think about the fact that an artist takes his material with him into the landscape, sets it up, makes a sculpture and then photographs it, and the photograph becomes art. The landscape and the art can shrink to the size of something you can put in your pocket – the size of a slide.³⁰

This observation about photography and situated practice is important, since framing and photographing the *Mirror Displacements* and taking the image away is itself another displacement. Holt observes the way the documentation was made, which in the 1960s and 1970s seemed to be a necessary but marginal adjunct to note the existence of the practice. Documentation has now become the practice; except now it is no longer generated on film but in digital formats, sometimes requiring a camera specialist or crew to be on site to record it.

Smithson had an ambivalent relationship to film and filmmaking of all kinds. In his writings he refers to mainstream narrative film, including a fascination with horror B-movies, but also acknowledges the expanded or experimental

²⁹ From this grid (bottom left frame) there is a single image work entitled *Mirror Displacement (Vertical on Rocky Bank) England* (1969), but *Mirror Displacement (Portland Isle)* (1969) no longer exists in this form. See <http://www.robertsmithson.com/photoworks/mirror-vertical.htm>. While he was abroad on the same trip he made another work with a map *Theory of Non-site (Oberhausen, Ruhr, Germany)* (1969).

³⁰ Simon Grant, 'Notes from An Ancient Island', *Nancy Holt Interview, Tate Etc.* Issue 25 (23 May 2012) 97–103. (p. 100).

work made by contemporary artists working in film.³¹ Nevertheless, Smithson's ideas about the perplexing aspects of filmmaking are thought-provoking; in 'A Cinematic Atopia' (1971)³² he writes:

The simple rectangle of the movie screen contains the flux, no matter how many orders one presents. But no sooner have we fixed the order in our mind than it dissolves into limbo. Tangles jungles, blind paths, secret passages lost cities invade our perception. The sites in films are not to be located or trusted. All is out of proportion. Scale inflates or deflates into uneasy dimensions. We wander between the towering and the bottomless. We are lost between the abyss within us and the boundless horizons outside us. Any film wraps us in uncertainty.³³

For Smithson, this cinematic atopia or no-place is the act of filming at a location or locations where the camera frame is used to cut out an image and displace it; the material shot at the site is then dislocated, taken away on the negative; it is relocated and constructed in the montage to be experienced and interpreted through the viewer's suspension of disbelief.

The island of Portland is not an obvious site for film practice. However, if W.J.T. Mitchell's comments about the landscape and the potential of film are considered:

[...] it should be clear why moving pictures of landscape are, in a very real sense, the subtext of these revisionist accounts of traditional motionless landscape images in photography, painting, and other media. [...] landscape is a dynamic medium, in which we "live and move and have our being," but also a medium that is in itself in motion from one place or time to another.³⁴

At Portland the movement of film from 'one place [...] to another' is also the movement of collapse as a poetic following the perpetual movement and

³¹ See 'A Cinematic Atopia' (1971) in Smithson *Robert Smithson: The Collected Writings*, pp. 138–42; and 'The Monument: Outline for a Film' (1967), pp. 356–57, which delineates a rather prosaic narrative of a road movie about artists looking for sites, travelling to places in a car, then returning to a gallery opening and party. See also Smithson's polemic on film 'Art Through the Camera's Eye', pp. 88–92 in Robert Smithson, *Unearthed: Drawings, Collages, Writings*, ed. by Eugenie Tsai (New York: Columbia University Press, 1991)

³² Ibid. *atopia* from the Greek: strangeness, from *a-*(privative), *topos* place *Chambers 12th Edition*. London: Chambers Harrap Publishers, 2011. p. 94; and: *atopia* 'unusualness', from *a-* 'without' + *topos* 'place' *Oxford Diction*

³³ Ibid. p. 141.

³⁴ W.J.T. Mitchell, ed. *Landscape and Power* (Chicago: University of Chicago Press, 2002) p. 2. Mitchell says this in his introduction by way of an omission, qualifying the absence of any essays on cinematic landscape, though he sees the scope of this in future research.

disruption in the quarries and the uncertainty of the cliffs; the latter despite looking monumental, have the constant possibility of failure and collapse. The idea noted by Cosgrove and Daniels of 'landscape as a text',³⁵ suggested ways of reading and interpreting landscape, both as place and representation. In this instance the text inscribed in Portland's landscape is one of uncertainty caused by quarrying and collapse; this pervades the island. The landscape was filmed and represented as a filmic text experimenting with and interpreting collapse as a poetic.

On the ground at Portland, I have not made a project of formally and systematically walking the site of the island, of hiking the twelve mile circumference of the coastal path walk, or the various bisecting paths. I have not followed the prescribed routes on the ordnance survey map. Instead, my experience has been one of wandering and meandering, allowing for chance encounters and unpredictable events. Walking across the island, it is uncertain what will be over each low ridge; walking very often means coming to another quarry and finding they are all different in size, scale, and age. Walking the cliff paths on the western side of the island and setting up the camera for filming and photographing at these locations causes a sense of vertigo, a fear of the edge, of falling and collapse. Each time at the island has been one of roaming according to what seemed right on the day, depending on the weather conditions or light and what paths were accessible through the working and abandoned quarries; walking around the edges of quarries, following the old railways, walking along some of the cliff paths and of scrambling down to the beaches, and searching for and finding locations for the film camera.

At Portland there is a persistent sense that at any moment something may happen – that something might collapse. Quarries of any kind were important places for Smithson, but unlike the 'non-sites'³⁶ that he went searching for, Portland kept exuding and imposing its own multiple histories, each offering the potential for further departure points and ways of making, thinking and writing. Quarries are man-made craters hacked into the ground, the edges, walls, and floors are rough, the sites worked only while they are economically viable, and because they are unfinished places they are also creative spaces. It seems that everyone who has come to Portland has seen something in the stone and the spaces made by its removal.

The villages and hamlets on Portland unfold as the traveller enters the island. The lower village of Fortuneswell is near Chesil bank, looks across to Weymouth, and is more of a fishing village. Next to it is Castletown, near

³⁵ Denis Cosgrove and Stephen Daniels, *The Iconography of Landscape: Essays on the Symbolic Representation, Design and Use of Past Environments*, p. 5.

³⁶ Ibid. p. 244.

Henry VIII's ruined castle and where the navy was based. Rising up five hundred feet onto the plane of a hill created by displacement of the strata by an ancient and distant earthquake, the village of Easton and the hamlets of Weston and Southwell are perched on the edges of the quarries. The cottages made from stones opportunistically collected by quarrymen sometimes face toward the quarries and at other times face the roads. On the island of Portland there is the pervading sound of work – industrial machinery, trucks moving the stone around, which must have been even more so in the past when more of the quarries were in operation. As a site Portland is largely industrial and does not fit the usual criteria for the picturesque, or as a place of contemplation, which strangely makes it all the more visually compelling. Even so, for such a small geographic area there are a number of interests and ranges of production there from quarrying, fishing, and ancient agriculture; until recently the navy, and earlier the army were there; also there are two prisons. It is a site for studying geology, it is a sea area and a weather station, and has three lighthouses, one in current operation, one a private house and the last a bird observatory. The contemporary interests of preservation, conservation and sustainability are reflected in leisure activities: the sculpture park in the disused Tout Quarry administered by a quarry trust; the sailing events at the 2012 Olympics on the bay between Portland and Weymouth were meant to establish this further.

During my time working on site at Portland and later working with the film material generated there, collected and cut out of the island and taken away like the stone, I have kept in mind the observations at the beginning of Paul Carter's *Material Thinking*, where he states that:

Material thinking occurs in the making of works of art. It happens when the artist dares to ask the simple but far-reaching questions What matters? What is the material of thought? To ask these questions is to embark on an intellectual adventure peculiar to the making process.
[sic] ³⁷

Reflecting on these questions about 'what matters' and asking 'what is the material thought' have been central to the practical inquiry and process of making and editing films and videos and building installations in order to experiment with and demonstrate a visual poetic of collapse.

³⁷ Paul Carter, *Material Thinking* (Melbourne: Melbourne University Press, 2004) p. xi.

Part 2

Practice

1. 16mm Film works

Portland Nos. 2 – 5 (North of Wallsend Cove to Mutton Cove, Portland Bill, West Weares, Independent quarry, Tout Quarry)

2010–2012. Installation: 2 x 16mm film loops. colour 10mins. Loop 1: cliffs, sea, horizon, weares. Loop 2: quarries, piles of off-cut stone waste. (Plates 1-3)

The concept of collapse at Portland is shown as space, time and material. Recurrent coastal landslips exposed the strata of Portland's Jurassic limestone and revealed its potential as architectural material. Centuries of quarrying have left Portland's landscape scarred by dislocation and absence. I explored the island of Portland as an uncertain and unstable space of collapse.

The time-based medium of moving image was used to survey Portland as place and material inscribed by time. This film installation shows technical and material images of the geology of the cracks in the limestone cliff faces on the western coast: north of Wallsend Cove to Mutton Cove, the quarried stone, the spaces left behind in the quarries, and abandoned material, are viewed as sites of imminent or potential collapse. The cliff faces of three hundred feet or more, with their deep fissures that create spaces between upright sections of stone, look like perpendicular gothic columns. Further along the coast, at the West Weares collapsed cliff faces known as 'weares' look as though a disaster has happened, or like a battlefield; but the 'weares' are both constructed by the dumping of waste material over the cliffs in the nineteenth century as well as by coastal collapse. In the quarries the abandoned off-cuts of Portland stone make unintended, random sculptures, abstract arrangements from the piles of stone. The uncertainty of Portland is that there is no continuity of space, surface or edge – the collapsing cliffs and the continual removal and shifting of the waste stone means that the site is never the same.

The film installation is devised to be projected from two 16mm projectors in continuous film loops, creating two adjacent images: one focusing on the sea and the cliff faces of Portland's uncertain edge, looking outwards into the horizon; and the other looking inwards into the absent voids and empty spaces of the quarries. The shots are carefully framed; save one shot, the camera does not move – movement can be discerned gradually in the frame: a bird, the sea or a wild plant in the wind. The duration of the projection creates and marks out time making a connection between the material temporalities of the film as a small increment of the geological time of the landscape. The

two loops are not of equal length, which means that viewers will see a work that is continually changing, as the two images always fall differently against each other. The viewer can never be certain they have seen the same work that someone else has seen. The duration and mechanics of the film repeatedly running through the projector causes the material of the film to scratch and deteriorate. The scratches are unique, marks inscribed accidentally on the surface of the films as random traces. The continuous time of the film running through the projectors causes it to break down: collapse continues to occur in time and in the presence of the viewer.

Film loops have been part of experimental film practice and exhibition as 'expanded cinema'³⁸ since the 1960s. The idea of expanded cinema was to break out of and go beyond the limits of the two-dimensional cinema screen, to take over auditoriums, galleries and the spaces where experimental film was shown and make film dynamic and performative in its own right. The projector became part of the show as the mechanical reproduction demonstrated itself. The purring sound of the projector filled spaces along with its light.

Off Cuts: Portland 3f

2013. Installation: 80 glass mounted slides containing 16mm frames. Slide projector 35mm + timer unit, continuous time projection. Approximately 7 minutes.

This piece is concerned with the material of film, and in particular the collapse of celluloid film itself. It was made at a time when it began to get harder to make 16 mm films. This piece is based on the experience of editing – of the pleasure of making, of handling and looking at the material of film. *Off Cuts: Portland 3f* is made from the trims that are pulled from the exposed film, which must be kept to account for each frame of film for the process of negative cutting and matching. The title of the piece is a play between the idea of the little pieces of film trimmed from the beginning and end of each shot *3f* meaning three frames, and the waste material of the stone at the quarries piled up in heaps that look as though they may collapse. These off-cuts include the flash frames that occur when the camera is turned on and off and the light level momentarily changes, causing a frame to be considerably brighter than those adjacent; even though this occurs at one twenty-fourth of a second, most people notice the flash even if they don't know what it was. At other times this flash frame occurs as just a void of light, an empty space defined by the frame. Most of these kinds of trims become the sole provenance of the editor, who cuts them out of the roll. I have always found them to be compelling and

³⁸ See: Gene Youngblood, *Expanded Cinema* (New York: Dutton, 1970); and A.L. Rees, Dave Curtis, Duncan White, Steven Ball eds. *Expanded Cinema: art, performance, film* (Tate Publications: London, 2011)

beautiful, abstract and material images that have so much to say about film itself, and sometimes when the editing has come to an impasse I have assembled them and looked at them for my own pleasure.

Three frame 16mm fragments of film have been mounted in 35mm glass slide mounts using film cement; at times they have been stuck in place imperfectly. Pressing the film frames in between the glass slide mounts had a sad dimension to the process – that of keeping and preserving the fragments of film itself in glass created them as an archive, an archaeology of conserving film, of saving an endangered material. The systematic mounting of the frames of film on slides echoes the scientific, and is reminiscent of the glass microscope slide – it seems like mounting and pinning out insects as scientific specimens. This felt like a poignant reversal of what Stan Brakhage did in *Mothlight* (1963), where he stuck the wings of moths onto the surface of film and projected it; making a remarkable and striking film that captured a sense of fragility, of nature and death through the creatures who fly into the light and die.³⁹ Whereas here, in *Off Cuts: Portland 3f*, film itself is being stuck down and preserved as scientifically conserved fragments of a collapsed technology.

The scale of the projection is ideally one where the projector is on a plinth of about 1.1 – 1.3 metres high with a throw of at least 4 metres; in doing this it is possible to project the slides so that they have a vertical, perpendicular presence in the space. The scale of this, together with the subject of the visual material of the frames of films from the quarries and cliffs creates a sense of the monumental, coincidentally paralleling the proportions of the Portland stone grave markers seen in Commonwealth War Graves of the first and second world wars. More particularly, the whole of the 16mm film is seen - the edges, sprocket holes, occasionally edge numbers and even previous damage of torn sprocket holes and scratches, red flaring and void frames. As the robust but jerky mechanics of the slide projector revolves, the frames sometimes slip inside the glass mounts. While this piece is a slide installation, the use of the now retro-technology of the slide projector means that it is still viewed as projected film and also works with the sound of the projector.

Nicodemus Knob Panorama

2012/2015. Installation. A curved photographic light box is planned – metal, perspex, LED lighting 24x6x6 reversal shot on a continuous roll of Fuji 220 film, metal frame holding film strip behind clear perspex. Behind the film strip an opaque white perspex layer diffuses a strip of LED lights. Plate 11, Drawing, James Swinson.

³⁹ See: P. Adams Sitney, *Visionary Film: The American Avant-Garde* (Oxford: Oxford University Press, 1974), 'The Lyrical film', pp. 174–210.

The panorama mounted on a light box is made from a continuous strip of 24 frames of medium format 6mm x 6mm film put through a Hasselblad camera. The panorama demonstrates the scale of the stone removed from the seventeenth century quarries Waycroft and Kingbarrow. These two quarries provided stone for Inigo Jones and for Wren's rebuilding of London after the Great Fire. As previously, mentioned, the pillar of stone is not an ancient geological formation, but a marker left by quarrymen to indicate the extent and quantity of stone that was removed from this area of the island. A panorama seemed the best way of showing this. The light box is used so that light would shine through the film, consistent with projecting the other 16mm and the 35 mm slide pieces. As with *Off Cuts: Portland 3f* the film is mounted and protected, this time between two sheets of perspex; mounted in a curved light box which parallels the movement of looking around the quarry. This piece shows collapse as absence in the scale of the removal of the stone.

Das Gewölbe 1800

(The Arch 1800)

2012 / 2014. Installation: 16 mm film loop. Animation b&w, 75 seconds.

An animation based on the pencil drawing that Kleist made of the arch added on 30 December 1800, to the end of the letter of 16 and 18 November 1800 to Wilhelmine von Zenge. Kleist's original drawing is a diagram showing how the arch remains standing because all stones want to *collapse at the same time*. Kleist's drawing of the arch is awkward, even amateurish, but functions diagrammatically; it is not the drawing of a professional engineer or architect. The drawing of the arch has been individually traced from a reproduction one hundred times onto animation cells. As I was copying this drawing over and over again, the lines took on identities – the sketchy vertical lines underneath the arch became collapse lines, since they seem to drawn in order to suggest how the imminent movement of the stones could cause them to collapse. The line Kleist drew immediately underneath the keystone of the arch and extending beyond the whole drawing is a practice of mark-making and performs no functional service to the geometry of the diagram – it is entirely conceptual. In the animation the conceptual, gestural and experimental nature of this line is reinforced through the way it moves, expands and contracts. This wavering, conceptual line demonstrates uncertainty; it is a metaphor experimentally traced through the thesis in the central inquiry about collapse.

Each drawing creates movement because it has been done by hand and therefore varies slightly, creating movement as it is animated. Each cell is filmed a single frame at a time, repeated in varying order from the numbered 100 cells for about 4000 frames (the length of a roll of 100ft of film), as it never works effectively to repeat the cells in exact order, because the eye starts to discern a

pattern. A febrile, shaky movement ensues, as the hand drawing can never be exactly the same each time, and this creates a moving and shaky line echoing the imminence and uncertainty of the arch as a visual poetics of collapse. The loop will be 75 seconds long, which is 1800 frames running at 24 frames per second. The number 1800 was chosen because that was the year in which the arch was drawn by Kleist.

Sound

In these 16mm film installations the sound of the projectors and the film moving through the guides of the looping plate systems is the only sound. In both the 16mm and 35mm slide projectors the sound is a mechanical, repetitive clatter of movement, and part of the installation. Location sound has been avoided in the 16mm films.

2. Video works

The video material has been used as a method of researching and documenting place and site. Video was used to explore and have an immediate relationship to the sites of the quarries, cliffs, landscape and sense of place and location at Portland and was used to help with the visual thinking of the site and how I might approach it using film, and in order to plan the 16mm film shoots. In addition, video was used in Germany to make work as part of my practice and also to collect documentary and notational imagery of places in Germany that I may only be able to get to once during the course of the research and may not develop a continuing relationship with. Video allows for longer shots than the Bolex, so duration became a factor. These documents have helped to create a sense of place.

Die Insel Ziegenwerder, Frankfurt an der Oder

(The goat river island)

2013. Installation: Video 5 mins, colour.

Documents a visit to Frankfurt an der Oder, the city where Kleist was born, in the Brandenburg region of Germany where his family had estates dating from the 12th century. Frankfurt an der Oder was a place that Kleist repeatedly returned to. The Oder is now the border between Germany and Poland; during Kleist's lifetime Brandenburg was one of the states, together with the western and northern regions of Poland, which were part of Prussia. The video was shot on an island in the river Oder; it has a bleak and melancholy feel to it. Perhaps Kleist knew this little river island. The island in the Oder resonated with the repeating motif of the island explored in this thesis as a place and a concept;

it stood in as reference to Kleist's time exiled on the island in river Aar, near Thun in Switzerland where he finally ended his engagement to Wilhelmine and decided to become a writer. The sound track, made up of location sound and footsteps walking, is connected to the idea of wandering, of Kleist's 'wavering spirit', and of the search to find a place in the world. The video contemplates islands as places of shifting and uncertain edges, where boundaries constantly erode and wash away.

Kleist Grabe, Kleiner Wannsee

(*Kleist Grave, Lesser Wannsee*)

2013. Installation: Video 5 mins, colour.

A video contemplating the site of the graves of Henrich von Kleist and Henriette Vogel at Kleine Wannsee. They are buried at the place where they died in a suicide pact on 21 November 1811. Wannsee is the furthest western area of Berlin, near Postdam. There are two lakes lying on the river Havel, *Großer Wannsee* (*Greater Wannsee*) and *Kleiner Wannsee* (*Lesser Wannsee*), demarcated by the Wannsee bridge. The graves overlook the lake and are enclosed by iron railings; a tree grows inside the enclosure beside the granite⁴⁰ gravestone. The stone has been replaced several times. On the side of the gravestone with Kleist's dates of birth and death is a quote from his play, *Prinz Friedrich von Homburg* (*The Prince of Homburg*), Act V scene 2: 'Nun, o Unsterblichkeit, bist du ganz mein!' (*Now, Oh immortality, you are all mine!*). The idea of immortality was belated, added decades later when a gravestone was put up, by which time Kleist had earned a place in the German literary canon. On the other side of the stone, a reference to Matthew 6:VI2 floats on the gravestone, alluding to but not actually quoting the biblical reference; (Matthäus Ch 6 VI2. *Und vergib uns unsere Schuld, wie wir unseren Schuldigern vergeben*) is an ambiguous choice: 'And forgive us our debts, as we forgive our debtors.' (*King James Bible*). Another version offers the verse as 'and forgive us our shortcomings, as we also have forgiven those who have failed in their duty towards us' (*Weymouth Bible*). Either way, in relation to Kleist's suicide it is unclear who needed forgiving and who fell short. On the other side of the gravestone are both Kleist and Henritte Vogel's names together with lines from Max Ring, a poet and chronicler of Berlin: '*Er lebte sang und lift /in trüber schwer Zeit / er suchter hier Tot / un fand Unsterblichkeit*' (*He lived, sang and suffered / in troubled and difficult times / he sought death here / and found immortality*).

The video was made in Spring 2013. It was cold and there was no sense that

⁴⁰ The gravestone is made from granite. This was the stone Goethe and Werner considered to be the '*Urstein*', the foundational mineral of geology. See discussion of this in Chapter 3, Part 1.

green shoots would be coming any time soon; the rain suited the melancholy theme and the sound of the drops on the umbrella held over the camera added to the atmospheric sound and seemed appropriate. Despite the signposts, the grave was hard to find. Eventually we found it on Bismarck Strasse. The voice-over reads a quote in German from Ferdinand Grimm, who visited the grave in 1818 with his brother Wilhelm, and is subtitled:

From the hilltop, a spacious clearing surrounded by pine trees, one has an open view across the wide sacred lake, taking in the many other wooded hills extending westward almost to distant Spandau, whose pointed church tower can be seen indistinctly. This is probably one of the loveliest and most peaceful spots for miles around. The graves are surrounded by some twenty tall poplars, but except for one I found them all withered; this is because of the sandy soil, in which they seldom thrive; Wilhelm and I removed several of the withered trunks, planted new ones, and tied them all together. Within a short time the saplings formed a wreath and stretched out their hands to one another. It looked really beautiful when we went back and looked. Not a soul had been there, it was so lonely and still; there was no other sound than the song of the chaffinches and titmice, and that too was beautiful.⁴¹

Initially, I had something else in mind for the voice-over: I read a translation of the autopsies of Kleist and Henriette Vogel. Though I kept hesitating about using this, I eventually decided that it would be too obvious and sensationalist, and ultimately gratuitous to use the autopsy, which described how the gun shot injury caused his death. I reread the description by Ferdinand Grimm of his and his brother's visit to the graves and the way they carefully tended it, and decided to use it for the voice-over because it was determined by a sense of place and consistent with collapse as a poetic.

3. Knowledge and practice

The knowledge gained through the film and video practice is a representation and demonstration of the concept of collapse. This knowledge is experimental in form, and as with Novalis's *Romantic Encyclopaedia*, is constructed from parts, each of which generates its own thinking. By curating the films, videos, animation, slides and still images together in an installation it confirmed collapse as a way of thinking and making.

The experience of being in the space of the installation offered further understandings of collapse represented through experimental practice. In an ideal situation, the works should be installed and projected onto walls opposite

⁴¹ Quoted in Maass, *Kleist: a biography*, p. 300.

each other, with films on one side and the videos on the other. The films and videos face each other and speak to each other while maintaining a sense of uncertainty because the whole cannot be apprehended. The viewer is placed in such a way that they cannot see both projection walls of the installation at the same time; a fluid montage is created through the movement of the viewer and by the movements of the images and projectors. A unique montage is constructed by each viewer as they move through the space catching fragments of the films, videos, slides, the stills of the light box and the animation as they create and experiment with their own version of the installation as a whole.

The installation experiments with time. This is in part through the montage constructed by the viewer, the running time of each of the films and videos and the slide projection. The sense of time in the installation is twofold – it is synchronic in the quality of at-the-same-time-ness that Kleist described in the way the arch would collapse, and is also diachronic, in that collapse progresses as movement through time.

Dissonant movement is created in the animation of the drawing of the arch by connecting each of the disjointed, single animation cells by filming them, then projecting as one piece. The animation of Kleist's drawing of the arch establishes a staccato movement, especially of the movement and gesture of the line drawn under the arch, which reinforces and marks the turn of the geometrical diagram of the arch into concept, idea, and experiment, which is disconcerting and uncertain. This line is also one of experimentation, and traces a path through the thesis, creating collapse as knowledge, thinking, looking and practice.

A soundscape is created in the installation from the mechanical whirr of two 16mm projectors, the repetitive mechanics of the 35mm slide projector, and the unsettling irritation of the fans from the three video projectors. There is the choice for the viewer to opt out of this soundscape and listen to the single sound track through headphones from each of the two videos made in Germany, which are composed of location sounds from nature, distant urban sounds and a voice over.

A recurrent theme present in the visual material is a sense of uncertain foundations. The locations at Portland and in Germany had a common thread of being poised on edges – of the sea, of river islands, of the lake and of the void of the quarries. These edges of land and water invite looking outwards into uncertain space, they create a sense of unknown yearning and set the viewer towards the retrieval of what is absent and uncertain. The edges of the islands are unstable and are defined by their uncertainty. Islands have edges, a coast, this can be seen in Carter's suggestion that:

[...] the coastline, unlike the conventionally differentiated river or hill or lake, is infinite and folded; it cannot ultimately be mapped and known. It has no other side – if it has one, it becomes detached turned into an island. It cannot strictly be bounded and possessed [...] ⁴²

Even though Portland or the die Insel Ziegenwerder on the Oder are relatively small islands, which suggests that their coastlines should be knowable and opposite to the infinite sense that Carter suggests, but the constant change and uncertain quality of all coastlines makes them unknowable. The coast is an edge, a space giving a viewpoint, not of itself, but further outwards to the uncertain horizon. The boundary of the island has a correspondence with the boundary of the quarry; the edge is a material place and is suggestive of the abyss.

The spatial and material quality of uncertainty for the viewer of the installation returns to Kant's introduction to the 'Physical Geography', where he outlines the reasons for a study of the earth, more particularly he argues how knowledge is assembled and constructed and incrementally built:

Idea[s] are **architectonic** [...] Anyone intending to build a house, for instance, will first form a conception of the whole [...] What we are doing here is making an **architectonic concept** for ourselves, which is a concept whereby the manifold parts are derived from the whole.⁴³

By advancing a method, which is derived from architectural thinking and from spatial concepts, Kant gives insight in to his own processes of thought. The 'architectonic concept' of building ideas made from parts has a correspondence with Novalis's experimental construction of the *Romantic Encyclopaedia*, and is present in the way this thesis has built a new knowledge of collapse through practice.

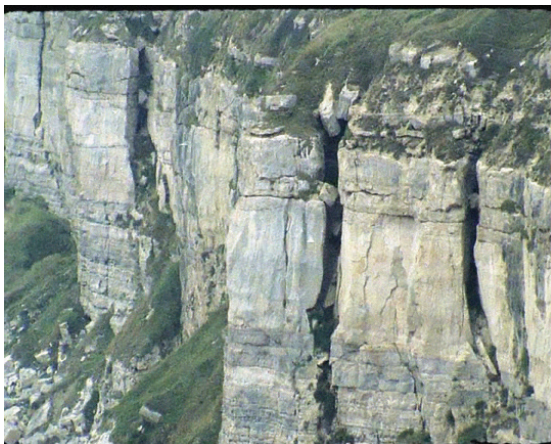
⁴² Paul Carter, 'Dark with an Excess of Bright' in Denis Cosgrove, ed., *Mappings*, pp. 130–31.

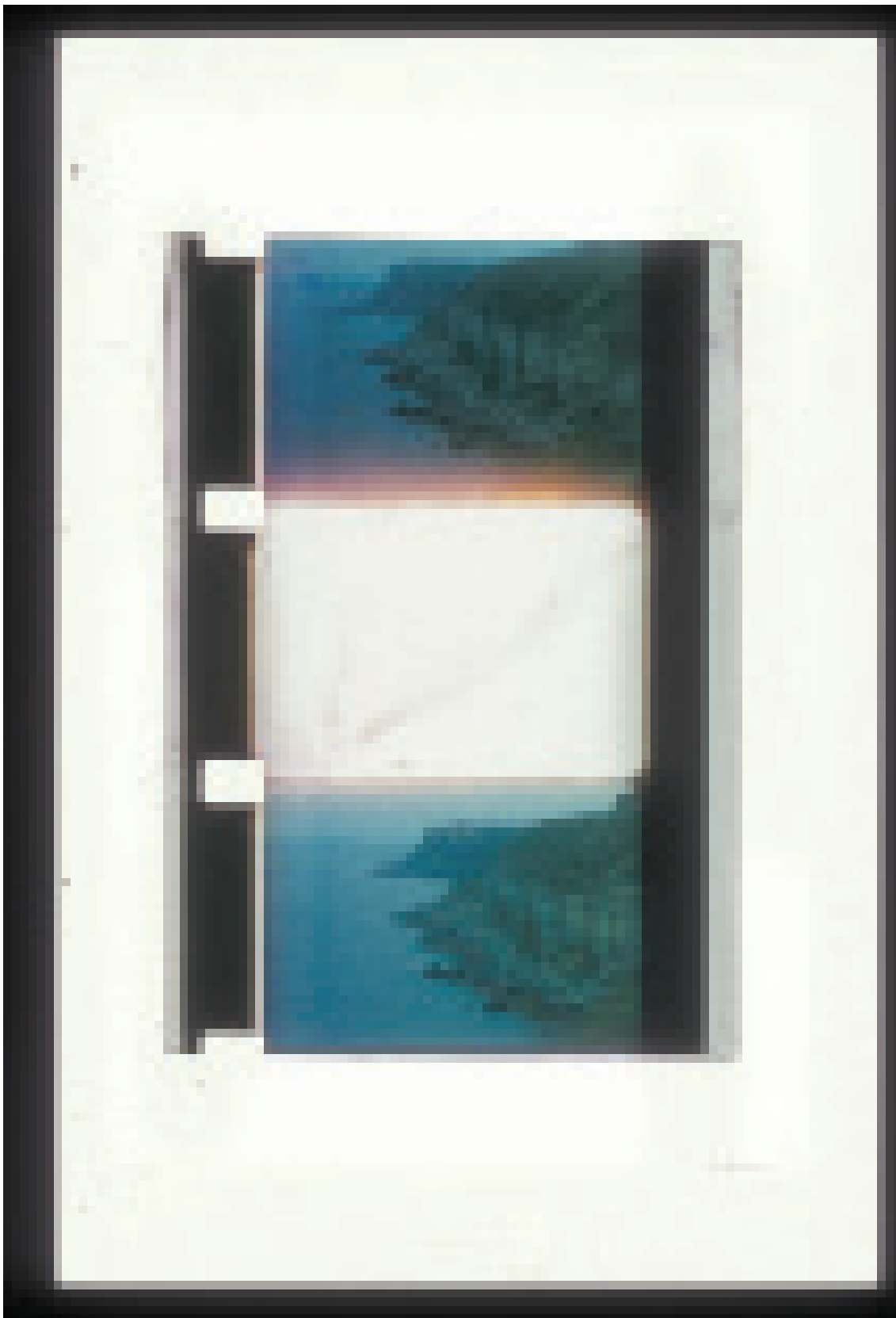
⁴³ Kant, 'Physical Geography', in *Natural Science*, pp. 446–47. Kant's emphasis.

Plates

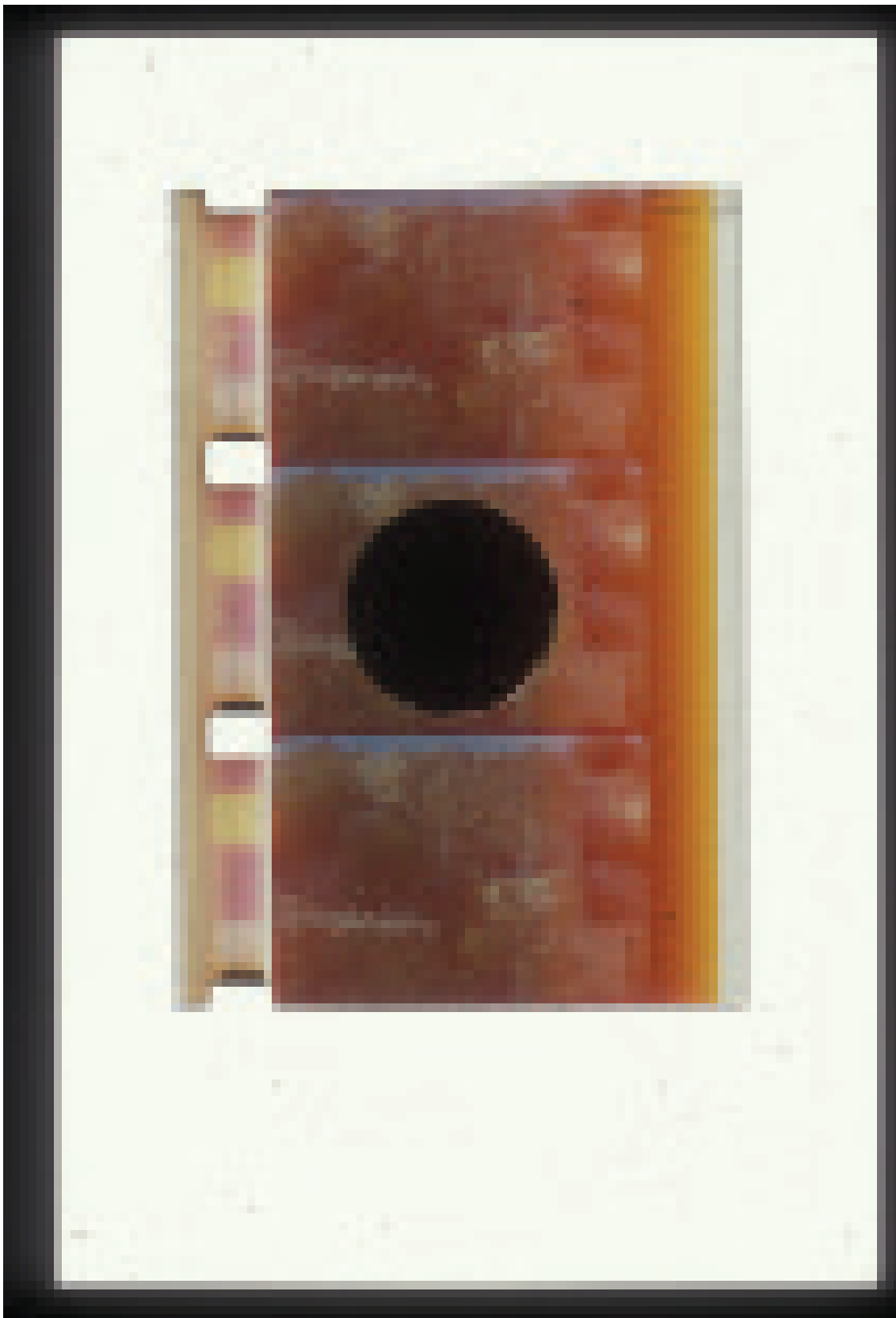










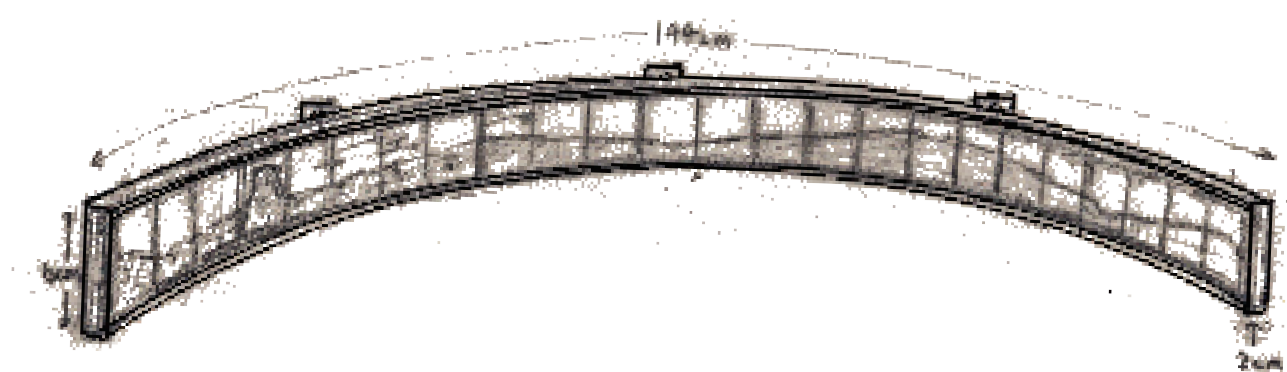


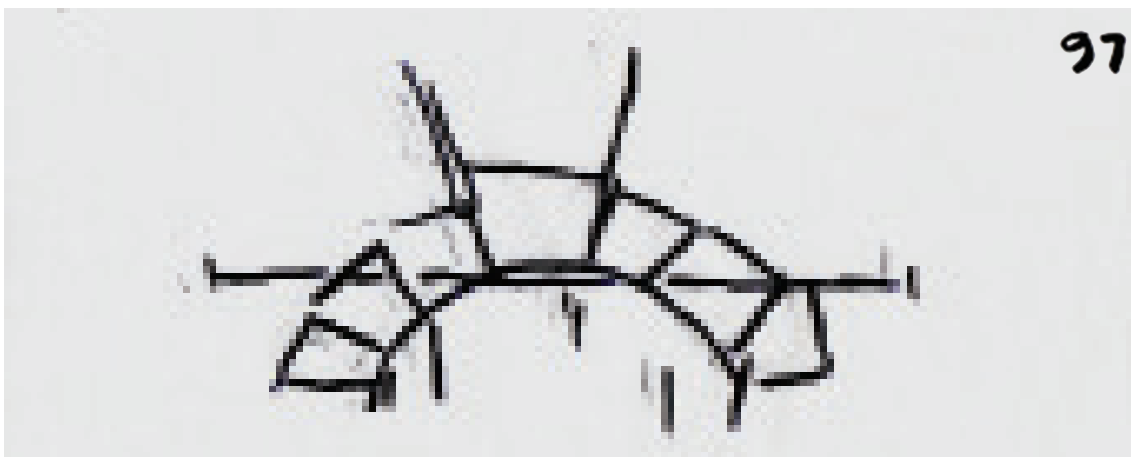
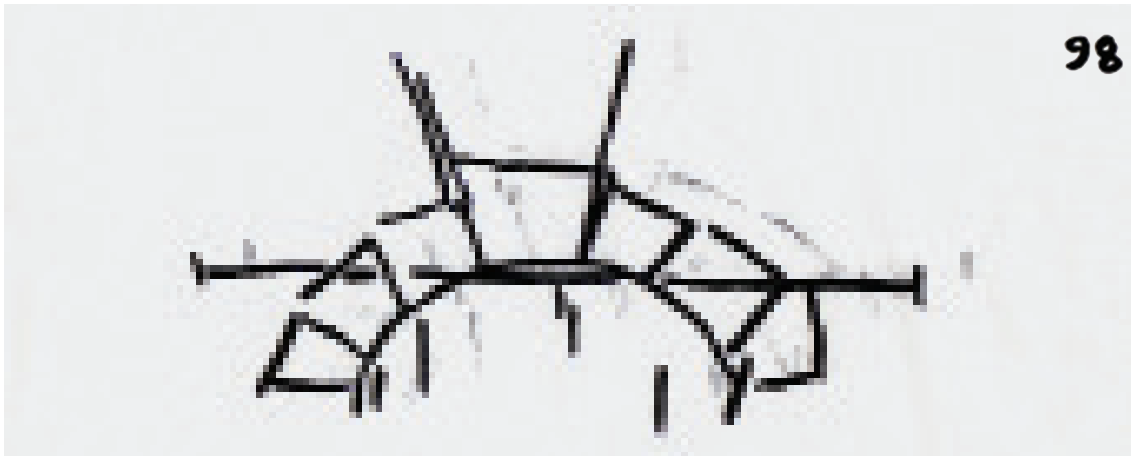
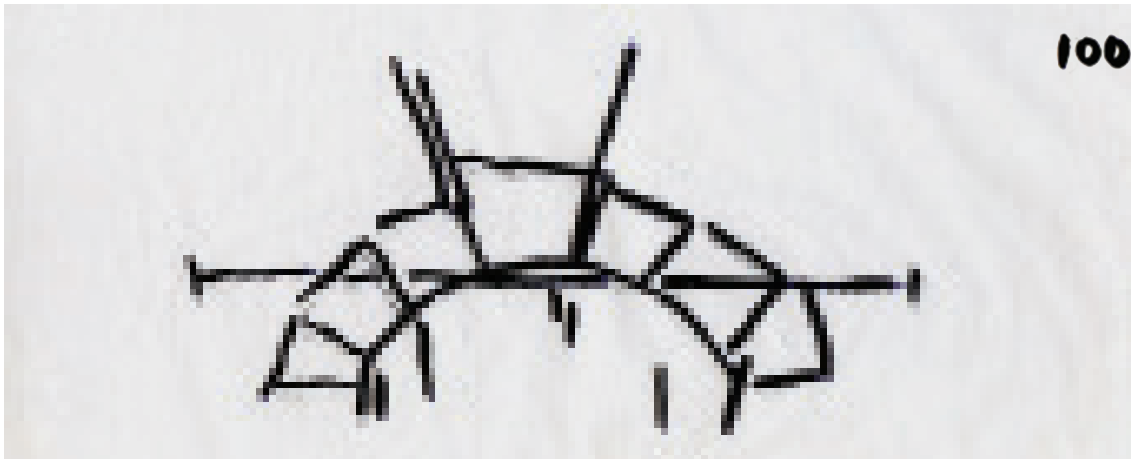


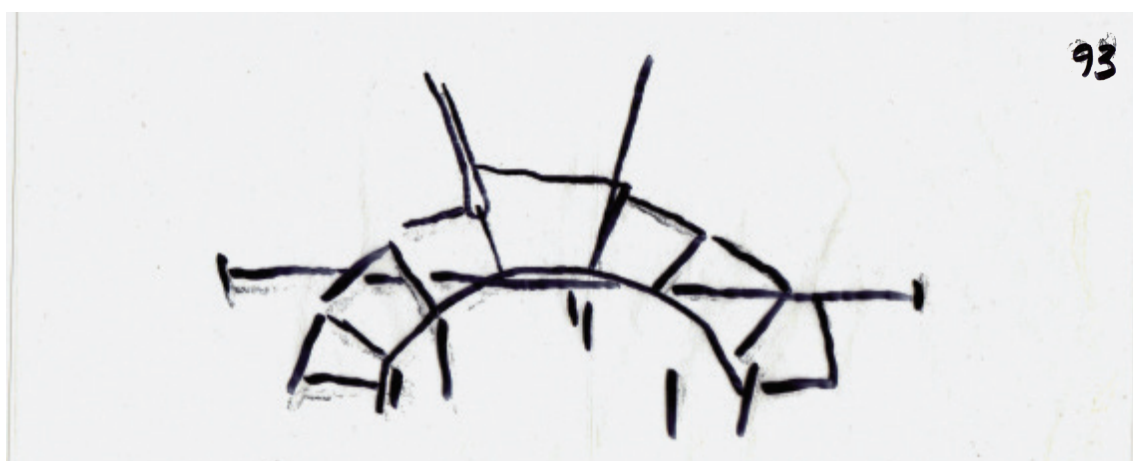
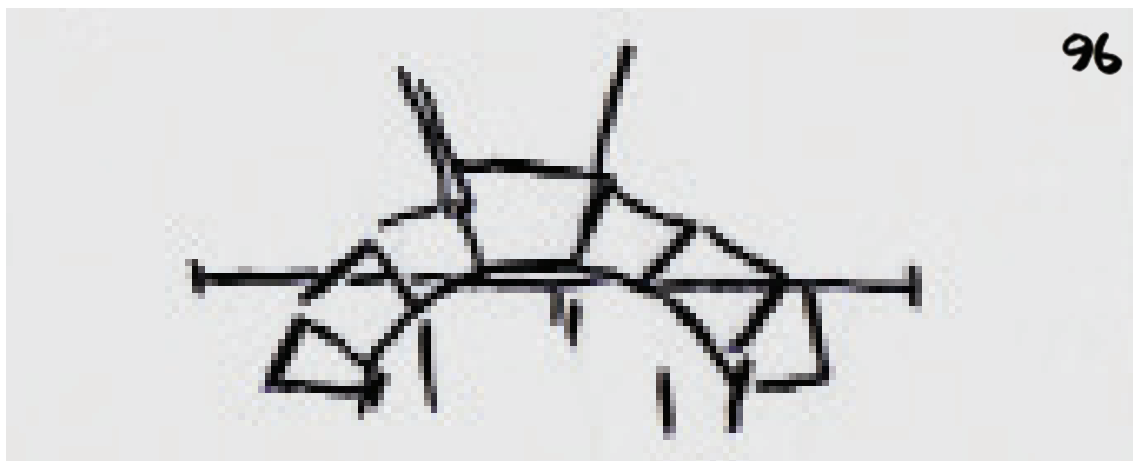




















Conclusion

This thesis responded to Kleist's question, which asked: why does an 'arch not collapse since it has no support?' and the observation which followed that '[i]t remains standing, [...] *because all the stones tend to collapse at the same time* –' The central research question asked whether collapse is always imminent, how collapse could be represented, what collapse might look like and whether uncertainty is the condition of collapse. In order to address these questions, my research was interdisciplinary and practice-based ranged across the visual practices of film, video, photography and installation; and in history, philosophy, literature, geology, architecture, spatial practices, and considerations of place and site.

The answers to these questions identified an interdisciplinary, experimental approach to this empirical observation about the arch constructed as a series of interlocking elements: stone, space, threshold, architecture and collapse. Kleist's arch is multiple and trans-disciplinary – it is a philosophical proposition, an architectural construction and a material artefact. The observation Kleist advanced concerning the possible continuity of the arch is empirically determined and reasoned, but the compelling and paradoxical image of the stones that keep the arch standing while wanting to fall – only holds collapse in abeyance and the imminence of this foreshadows its capacity for collapse. This empirical observation revealed a visual, demonstrable and certain truth, but also possessed transgressive potential in its construction – that the arch *could* collapse, at some time or another.

This led to the supposition that something devised and constructed embeds collapse within its form as uncertainty. The multifaceted components, which both construct the arch, and may be the means of its demise, led to the investigation of the materiality of collapse. The arch is constructed, it is an architectural artefact, the geometry of the arch itself constructs space, as both boundary and limit, but because the arch is also a threshold, it is therefore temporal. The arch exists in time – traversing it demarcates time and its potential for collapse occurs in time.

The metaphor about the potential for the arch to collapse is material, visual, geometric and diagrammatic, and it invited contemplation and interpretation as a poetic and a practice. This was explored through the principle areas of inquiry of collapse, uncertainty and experimentation. This formed a triangle with collapse at the apex; uncertainty and experimentation completed the geometry and this triumvirate offered the means of thinking about collapse.

The concept of collapse was developed as experimental practices in film, video, stills and animation, which came together as an installation. The site-specific practice at Portland built on, and consolidated, the exploration of collapse as material, and as reflections in time. At Portland the site exists for and about its material, and this allowed for interdisciplinary methods of collaborating with Portland as place and site that invited practice as the handling and application of the material of Portland stone through art, film, architecture, geology, geography, philosophy in ways that were so fascinating as to induce me into researching its history and material time.

Terrains of thought and ideas criss-crossed between history, practice, place and material throughout this interdisciplinary research. The findings in relation to the literatures considered, which initially seemed as though they may be related to a theory of collapse, such as those of the ruin, determined that an inquiry into collapse was separate and different. Studies of the ruin show that the condition of the ruin is verified by certainty, because it is an event that has already taken place, whereas collapse is qualified by its uncertainty, of the imminence or threat that collapse may happen at an unknowable, but indefinite moment.

The disintegration and fragmentation of the certainties of empiricism were precipitated by the external and unpredictable geological and material event of the calamitous earthquake in Lisbon in 1755. This had an immediate and lasting effect on Enlightenment thought. This historical event demonstrated that the imminence of collapse could suddenly become *collapse at the same time*. The uncertainty of earthquake creates provisional architectures out of collapse, randomly making survival possible, and death inevitable. Kant's three essays responded to the disaster in order to hypothesize the causes of earthquakes, which subsequently formed a significant part of his pre-critical thinking and led to theories of the earth, and then to geography. Acceptance and recognition of the uncertainty of the material world beneath the apparent stability of the surface of the earth were acknowledged and became foundations to the material and the geographical for Kant, and consequently questions of the spatial were crucial for the incremental movement towards the critical turn in his thinking.

When Kant's *Critiques* were published they set in motion questions of time and space, of what is knowable, the veracity of truth, and of consciousness and the modern subject. This established the idea that nothing is certain and truth is ultimately unknowable, and thus truth collapsed, and becomes qualified and relative. Post-Kantian thinking in the late eighteenth and the first decades of the nineteenth centuries led to the rapid expansion of German philosophy. Novalis's and other post-Kantian contributions to this field emerged as both

clarification and critique. Kleist made a tortuous transition between empirical and critical thinking. Kleist applied uncertainty as a repeating theme in his writing, but also invoked questions of consciousness and self-consciousness. However, Novalis questioned the means of creating consciousness, and identified that the concept of consciousness has the potential to be misconstrued by the subject. Novalis's experimental thinking worked from a material, geological perspective intertwined with philosophy and poetics as a practice, establishing a link between language and the enhancement of science through '*romantische Poesie*'. Kant's extensive writing on natural philosophy identified and articulated the scope of inquiry for physical geography and theories of the earth. The poetics of geology brought layers of description to science; much later this was especially so in Jacquetta Hawkes's attachment to land, and the intense sense of place which emerged from the collapse of a war-torn world. She established that the material of the earth has enduring qualities of time and continuity, and showed why it became important for mourning and memorial.

The interweaving of poetics, philosophy and tangible material gave insights into the scope and potential for the interdisciplinary practices in this thesis. I was drawn to Portland as a site of inquiry and research because its fractured, disrupted landscape suggested an image and demonstration of collapse. At the island collapse is part of the landscape and geomorphology of limestone and as a quality of quarrying. Centuries of quarrying have created a disrupted landscape of collapse on Portland. The material quarried at Portland was needed in vast quantities as reconstruction and restoration following the seventeenth century collapse occasioned by the Great Fire of London and of the mass destruction of the wars of the twentieth century. Wren led the reconstruction of London, and Hooke was a pivotal figure not just in this scheme, but his own endeavours in scientific study. Hooke intuited a theorem concerning the arch – of how it might fall, but also how it can stay up – and answered questions about how and why an arch collapses.

The research at Portland was located. Place is suggestive of territory, and whether this is the subject of dispute or as the place of situated practice, territory eventually has a boundary, an edge that is always uncertain and prone to collapse in whatever form that may take as material fragmentation or historical outcome. At Portland collapse is manifested as the perpetual change of coastal collapse; the continuation of collapse at the island occurs as the stone is quarried and carted away. At the quarries space is constructed and an uncertain vessel is made as the quarried stone is emptied out of these places. This is depicted in a still photographic panorama, which has been used to demonstrate the scale of removal of the stone at Portland and how the island may be nibbled away. This inquiry has advanced the idea that the construction

of absence, through the spaces left by architecture's uses, can be regarded as architecture and as history.

This was explored in film constructed as visual and material links to collapse by making films that would deteriorate and collapse as they were projected as continuous film loops. The film and video practice was concerned with materiality and collapse also in the current context of the precarious and uncertain fate of celluloid film, and through handling and preserving the material of film as artefact on the one hand; on the other hand, by setting up the conditions of damage and destruction in the projected film loops, and also by cutting, editing, and reassembling it into (an)other visual form, both within and outside its own frameworks.

The video works are determined by space, time and place. They were filmed at the sites of Kleist's birth and death and reflect on Kleist's wavering spirit, which led to restless movement manifested as wandering and primarily, uncertainty. Spatial encounters were suggested by Nietzsche's ideas of the wanderer and with Kleist's compulsion towards the abyss. The videos give time and space to thinking and the contemplation of place.

In the interdisciplinary histories and questions of place, and the explorations of spatial thinking as practice and concept – the implications of this research, and the knowledge gained is that collapse is an original way of thinking, and that in conjunction with experimentation and uncertainty, collapse suggested a substantial inquiry.

The possibilities for further inquiries into collapse in other places and other situations, from literary, historical, architectural or conceptual sources are wide-ranging. As theory, conceptual thinking, and as practice-based research, ideas concerning collapse have the potential and the scope for further investigation, analysis and application in specific fields or as interdisciplinary inquiry. The capacity for the concept of collapse to continue to be part of my practice and research is in no doubt – this concept is a constituent facet of my thinking and making, and is the likely background characteristic of future projects. In the course of this thesis, I have shown that uncertainty creates the condition and potential for collapse. Considering the implications and exploring the possibilities of the separate components that built the image of the arch, has identified and attested that a theory of collapse is temporal, spatial, conceptual, architectural and material.

Appendix

Kleist Letter-Map

228 of Kleist's letters were collected.

- | | |
|--|---|
| 1. Frankfurt-am-Main 13 - 18 March 1793 | to Auguste Helene von Massow |
| 2. Eschborn 25 February 1795 | to Ulrike von Kleist |
| 3. Postdam 18 and 19 March 1799 | to Christian Ernst Martini |
| 4. Frankfurt an der Oder May 1799 – May 1800 | to den vom. Rgt. Garde verabschiedeten
Lieut v. Kleist |
| 5. Frankfurt an der Oder May 1799 | to Ulrike von Kleist |
| 6. Frankfurt an der Oder 12 November | to Ulrike von Kleist |
| 7. Frankfurt an der Oder early 1800 | to Wilhelmine von Zenge |
| 8. Frankfurt an der Oder early 1800 | to Wilhelmine von Zenge |
| 9. Frankfurt an der Oder 30 May 1800 | to Wilhelmine von Zenge |
| 10. Frankfurt an der Oder early Summer 1800 | to Wilhelmine von Zenge |
| 11. Berlin 14 August 1800 | to Ulrike von Kleist |
| 12. Berlin 16 August 1800 | to Wilhelmine von Zenge |
| 13. Pasewalk 20 August 1800 | to Wilhelmine von Zenge |
| 14. Coblenz, near Pasewalk 21 August 1800 | to Ulrike von Kleist |
| 15. Coblenz, near Pasewalk 21 August 1800 | to Wilhelmine von Zenge |
| 16. Berlin 26 August 1800 | to Ulrike von Kleist |
| 17. Leipzig 30 August, 1 Sept 1800 | to Wilhelmine von Zenge |
| 18. Dresden 3 & 4 September 1800 | to Wilhelmine von Zenge |
| 19. Öderan in Erzgebirge 4 September 1800, 9 pm
& Chemnitz 5 September 1800, 8 am
& Zwickau 5 September 1800, 3 pm
& Reichenbach 5 September 1800, 8 pm | to Wilhelmine von Zenge |
| 20. Würzburg 9 or 10 September 1800 | to Wilhelmine von Zenge |
| 21. Würzburg 11 & 12 September 1800 | to Wilhelmine von Zenge |
| 22. Würzburg 13 – 18 September 1800 | to Wilhelmine von Zenge |
| 23. Würzburg 19 – 23 September 1800 | to Wilhelmine von Zenge |
| 24. Würzburg 10 & 11 October 1800 | to Wilhelmine von Zenge |
| 25. Berlin 27 October 1800 | to Ulrike von Kleist |
| 26. Berlin 27 October 1800 | to Karl August von Struensee |
| 27. Berlin 13 November 1800 | to Wilhelmine von Zenge |
| 28. Berlin 16 & 18 November 1800, | to Wilhelmine von Zenge
with addition 30 December 1800 |
| 29. Berlin 22 November 1800 | to Wilhelmine von Zenge |
| 30. Berlin 25 November 1800 | to Ulrike von Kleist |
| 31. Berlin 29 November 1800 | to Wilhelmine von Zenge |
| 32. Frankfurt an der Oder December 1800 | to Ulrike von Kleist |
| 33. Berlin 11 & 12 January 1801 | to Wilhelmine von Zenge |

34. Berlin 21 & 22 January 1801
 35. Berlin 31 January 1801
 36. Berlin 5 February 1801
 37. Berlin 22 March 1801
 38. Berlin 23 March 1801
 39. Berlin 28 March 1801
 40. Berlin 1 April 1801
 41. Berlin 9 April 1801
 42. Berlin 12 April 1801
 43. Berlin 14 April 1801
 44. Dresden 4 May 1801
 45. Leipzig 21 May 1801
 46. Göttingen 3 June 1801
 47. Straßburg 28 June 1801
 48. Paris 18 July 1801
 49. Paris 21 July 1801
 50. Paris 28 & 29 July 1801
 51. Paris 15 August 1801
 52. Paris 16 August 1801
 53. Paris 10 October 1801
 54. Paris 27 October 1801
 55. Paris November (?) 1801
 56. Paris & Frankfurt-am-Main November 1801
 57. Frankfurt-am-Main 2 December 1801
 58. Basel, Switzerland 16 December 1801
 59. Liestal & Bern 23 – 29 December 1801
 60. Bern 12 January 1802
 61. Thun 1 February 1802
 62. Thun 19 February 1802
 63. Thun 2 March 1802
 64. Thun 18 March 1802
 65. Island of the Aar, near Thun 1 May 1802
 66. Island of the Aar, near Thun 20 May 1802
 67. Bern August 1802
 68. Weimar November 1802
 69. Weimar 9 December 1802
 70. Weimar January 1803
 71. Weimar & Oßmannstedt January 1803
 72. Leipzig 13 & 14 March 1803
 73. Dresden April 1803
 74. Dresden 3 July 1803
 75. Leipzig 20 July 1803
 76. Geneva 5 October 1803
- to Wilhelmine von Zenge
to Wilhelmine von Zenge
to Ulrike von Kleist
to Wilhelmine von Zenge
to Ulrike von Kleist
to Wilhelmine von Zenge
to Ulrike von Kleist
to Wilhelmine von Zenge
to Gottlob Johannn Christian Kunth
to Wilhelmine von Zenge
to Wilhelmine von Zenge
to Wilhelmine von Zenge
to Wilhelmine von Zenge
to Wilhelmine von Zenge
to Karoline von Schlieben
to Wilhelmine von Zenge
to Adolfine von Wedeck
to Wilhelmine von Zenge
to Luise von Zenge
to Wilhelmine von Zenge
to Wilhelmine von Zenge
to Ludwig von Brockes
to Adolfine von Wedeck
to Wilhelmine von Zenge
to Wilhelmine von Zenge
to Heinrich Lohse
to Ulrike von Kleist
to Heinrich Zschokke
to Ulrike von Kleist
to Heinrich Zschokke
to Ulrike von Kleist
to Ulrike von Kleist
to Wilhelmine von Zenge
to Wilhelm von Pannwitz
to Ulrike von Kleist
to Ulrike von Kleist
to Ulrike von Kleist
to Ulrike von Kleist
to Ulrike von Kleist
to Heinrich Lohse
to Ulrike von Kleist
to Ulrike von Kleist
to Ulrike von Kleist

77. St. Omer October 1803
 78. Berlin 24 June 1804
 79. Berlin 27 June 1804
 80. Berlin 11 July 1804
 81. Berlin 27 July 1804
 82. Berlin 29 July 1804
 83. Berlin 2 August 1804
 84. Berlin 24 August 1804
 85. Berlin December 1804
 86. Berlin 7 January 1805
 87. Berlin April 1805
 88. Königsberg 13 May 1805
 89. Königsberg 1805
 90. Königsberg July 1805
 91. Königsberg 13 November 1805
 92. Königsberg Late November 1805
 93. Königsberg 10 February 1806
 94. Königsberg 30 June 1806
 95. Königsberg 10 July 1806
 96. Königsberg 4 August 1806
 97. Königsberg 31 August 1806
 98. Königsberg 24 October 1806
 99. Königsberg 24 November 1806
 100. Königsberg 6 December 1806
 101. Königsberg 31 December 1806
 102. Marburg 17 February 1807
 103. Au Fort de Joux, France 31 March 1807
 104. Chalons-sur-Marne 23 April 1807
 105. Chalons-sur-Marne 8 June 1807
 106. Chalons-sur-Marne June 1807
 107. Chalons-sur-Marne 15 July 1807
 108. Chalons-sur-Marne July 1807
 109. Chalons-sur-Marne 15 July 1807
 110. Berlin 14 August 1807
 111. Dresden 17 September 1807
 112. Dresden 17 September 1807
 113. Dresden 3 October 1807
 114. Dresden 25 October 1807
 115. Dresden 30 October 1807
 116. Dresden Late Autumn 1807
 117. Dresden Late Autumn 1807
 118. Dresden Late Autumn 1807
- to Ulrike von Kleist
- to Ulrike von Kleist
- to Ulrike von Kleist
- to Ulrike von Kleist
- to Ulrike von Kleist
- to Henriette von Schlieben
- to Ulrike von Kleist
- to Ulrike von Kleist
- to Ulrike von Kleist
- to Ernst von Pfuel
- to Christian von Massenbach
- to Karl von Stein zum Altenstein
- to Ernst Pfuel [incl. drawing]
- to Ernst von Pfuel
- to Karl von Stein zum Altenstein
- to Otto August Rühle von Lilienstern
- to Karl von Stein zum Altenstein
- to Karl von Stein zum Altenstein
- to Hans von Auerswald
- to Karl von Stein zum Altenstein
- to Otto August Rühle von Lilienstern
- to Ulrike von Kleist
- to Marie von Kleist
- to Ulrike von Kleist
- to Ulrike von Kleist
- to Ulrike von Kleist
- to Monsieur de Bureau, Commandant du
Fort de à Pontarlier
- to Ulrike von Kleist
- to Ulrike von Kleist
- to Marie von Kleist
- to Otto August Rühle von Lilienstern
- to Ulrike von Kleist
- to Otto August Rühle von Lilienstern
- to Otto August Rühle von Lilienstern
- to Ulrike von Kleist
- to Johan Friedrich Cotta
- to Ulrike von Kleist
- to Ulrike von Kleist
- to Adolphine von Werdeck
- to Marie von Kleist
- to Marie von Kleist
- to Marie von Kleist

119. Dresden 17 December 1807
 120. Dresden 17 December 1807
 121. Dresden 21 December 1807
 122. Dresden 22 December 1807
 123. Dresden 22 December 1807
 124. Dresden 5 January 1808
 125. Dresden 24 January 1808
 126. Dresden 29 January 1808
 127. Dresden 1 February 1808
 128. Dresden 4 February 1808
 129. Dresden 8 February 1808
 130. Dresden 14 February 1808
 131. Dresden April 1808
 132. Dresden 4 May 1808
 133. Dresden 7 May 1808
 134. Dresden 7 June 1808
 135. Dresden 24 July 1808
 136. Dresden August 1808
 137. Dresden 30 September 1808
 138. Dresden 2 October 1808
 139. Dresden 6 October 1808
 140. Dresden 2 November 1808
 141. Dresden 8 December 1808
 142. Dresden 1808
 143. Dresden 1 January 1809
 144. Dresden 1 January 1809
 145. Dresden 22 February 1809
 146. Dresden 5 April 1809
 147. Dresden 8 April 1809
 148. Dresden 14 April 1809
 149. Dresden 20 April 1809
 150. Töplitz 3 May 1809
 151. Stockerau 25 May 1809
 152. Prague 13 June 1809
 153. Prague 17 July 1809
 154. Frankfurt an der Oder 23 November 1809
 155. Frankfurt an der Oder 23 November 1809
 156. Frankfurt am Main 12 January 1810
 157. Gotha 28 January 1810
 158. Berlin 4 March 1810
 159. Berlin 19 March 1810
 160. Berlin 1 April 1810
 161. Berlin 8 April 1810
- to Ulrike von Kleist
to Christoph Martin Wieland
to Johan Friedrich Cotta
to Hans von Auerswald
to Karl von Stein zum Altenstein
to Ulrike von Kleist
to Johann Wolfgang von Goethe
to Heinrich Dieterich
to Ulrike von Kleist
to Joseph Thaddäus Freiherrn von Sumeraw
to Ulrike von Kleist
to Heinrich Joseph von Collin
to Otto August Rühle von Lilienstern
to Otto August Rühle von Lilienstern
to Gerog Joachim Göschen
to Johann Friedrich Cotta
to Johann Friedrich Cotta
to Ulrike von Kleist
to Ulrike von Kleist
to Heinrich Joseph von Collin
to Karl August von Varnhagen von Ense
to Ulrike von Kleist
to Ulrike von Kleist
to Otto August Rühle von Lilienstern
to Heinrich Joseph von Collin
to Otto August Rühle von Lilienstern
to Heinrich Joseph von Collin
to Georg Moritz Walther
to Ulrike von Kleist
to das Sadtergericht zu Frankfurt a. d. Oder
to Heinrich Joseph von Collin
to Ulrike von Kleist
to Joseph Baron von Buol-Mülingen
to Friedrich Schlegel
to Ulrike von Kleist
to Ulrike von Kleist
to Georg Friedrich Dames
to Johan Friedrich Cotta
to Heinrich Joseph von Collin
to Johan Friedrich Cotta
to Ulrike von Kleist
to Johan Friedrich Cotta
to Wilhelm Reuter

162. Berlin 16 April 1810
 163. Berlin 30 April 1810
 164. Berlin 8 May 1810
 165. Berlin May 1810
 166. Berlin 10 August 1810
 167. Berlin 10 August 1810
 168. Berlin 12 August 1810
 169. Berlin 12 August 1810
 170. Berlin 13 August 1810
 171. Berlin 15 August 1810
 172. Berlin 4 September 1810
 173. Berlin 5 September 1810
 174. Berlin 8 September 1810
 175. Berlin 2 October 1810
 176. Berlin 14 October 1810
 177. Berlin 23 October 1810
 178. Berlin 24 November 1810
 179. Berlin 2 December 1810
 180. Berlin 3 December 1810
 181. Berlin 12 December 1810
 182. Berlin 13 December 1810
 183. Berlin 15 December 1810
 184. Berlin 15 December 1810
 185. Berlin 17 December 1810
 186. Berlin 1 January 1811
 187. Berlin 12 January 1811
 188. Berlin 30 January 1811
 189. Berlin 10 February 1811
 190. Berlin 13 February 1811
 191. Berlin 21 February 1811
 192. Berlin 22 February 1811
 193. Berlin 22 February 1811
 194. Berlin 26 February 1811
 195. Berlin 10 March 1811
 196. Berlin 4 April 1811
 197. Berlin 4 April 1811
 198. Berlin 23 April 1811
 199. Berlin 25 April 1811
 200. Berlin 26 April 1811
 201. Berlin 20 May 1811
 202. Berlin 31 May 1811
 203. Berlin 6 June 1811
 204. Berlin 17 June 1811

to Wilhelm Reuter
 to Georg Andreas Reimer
 to Wilhelm Reuter
 to Georg Andreas Reimer
 to Georg Andreas Reimer
 to August Wilhelm Riffland
 to August Wilhelm Riffland
 to Georg Andreas Reimer
 to Georg Andreas Reimer
 to Johann Daniel Sander
 to Georg Andreas Reimer
 to Georg Andreas Reimer
 to Georg Andreas Reimer
 to Julius Eduard Hitzig
 to Achim von Arnim
 to Eduard Prinz von Lichnowsky
 to Christian Freiherrn von Ompteda
 to Christian Freiherrn von Ompteda
 to Karl August Freiherrn von Hardenberg
 to Georg Andreas Reimer
 to Friedrich von Raumer
 to Friedrich von Raumer
 to Karl August Freiherrn von Hardenberg
 to Wilhelm Römer
 to Friedrich Schulz
 to Georg Andreas Reimer
 to Georg Andreas Reimer
 to Georg Andreas Reimer
 to Karl August Freiherrn von Hardenberg
 to Friedrich von Raumer
 to Karl August Freiherrn von Hardenberg
 to Friedrich von Raumer
 to Friedrich von Raumer
 to Karl August Freiherrn von Hardenberg
 to Friedrich von Raumer
 to Karl August Freiherrn von Hardenberg
 to Henriette Hendel-Schütz
 to Friedrich de la Motte Fouqué
 to Freidrich Karl Julius Schütz
 to Wilelm Prinz von Preußen
 to Georg Andreas Reimer
 to Karl August Freiherrn von Hardenberg
 to Friedrich Wilhelm III

205. Berlin 21 June 1811	to Georg Andreas Reimer
206. Berlin 26 July 1811	to Georg Andreas Reimer
207. Berlin end July 1811	to Georg Andreas Reimer
208. Berlin July 1811	to Marie von Kleist
209. Berlin Summer 1811	to Achim von Arnim
210. Berlin Summer 1811	to Marie von Kleist
211. Berlin Summer 1811	to Marie von Kleist
212. Berlin Summer 1811	to Marie von Kleist
213. Berlin Summer 1811	to Ulrike von Kleist
214. Berlin 11 August 1811	to Friedrich de la Motte Fouqué
215. Berlin 17 September 1811	to Marie von Kleist
216. Frankfurt an der Oder 18 September 1811	to Ulrike von Kleist
217. Friedersdorf 18 September 1811	[Record] Aufzeichnung auf Gut Friedersdorf
218. Berlin 19 September 1811	to Karl August Freiherrn von Hardenberg
219. Berlin October 1811	to Sophie Sander
220. Berlin 16 October 1811	to Rahel Levin
221. Berlin 24 October 1811	to Rahel Levin
222. Berlin 10 November 1811	to Marie von Kleist
223. Berlin 19 November 1811	to Marie von Kleist
224. Berlin 20 November 1811	to Sophie Müller
225. Stimmings, bei Potsdam 21 November 1811	to Frau Manitiuss
226. Stimmings, bei Potsdam 21 November 1811	to Ulrike von Kleist
227. Stimmings, bei Potsdam 21 November 1811	to Marie von Kleist
228. Stimmings, bei Potsdam 21 November 1811	to Ernst Friedrich Peguilen

Bibliography

- Agamben, Giorgio, *The Coming Community*, trans. by Michael Hardt, Theory out of Bounds, Volume 1 (Minneapolis: University of Minnesota Press, 2003)
- Ameriks, Karl, *Kant and the Historical Turn: Philosophy as Critical Interpretation* (Oxford: Clarendon Press, 2006)
- and Dieter Sturma, eds. *The Modern Subject: Conceptions of the Self in Classical German Philosophy* (Albany: State University of New York Press, 1995)
- Ansell-Pearson, Keith, *Nietzsche and Modern German Thought* (London: Routledge, 1991)
- Aristotle, *The Metaphysics*, trans. Hugh Lawson-Tancred (London: Penguin, 2004)
- *Poetics*, trans. Malcolm Heath (London: Penguin, 1996)
- Arto-Haumacher, Rafael, *Gellerts Briefpraxis und Brieflehre: der Anfang einer neuen Briefkultur*, (Wiesbaden: DUV, c.1995)
- Askell, W.J. and S.I. Tomkeieff, *English Rock Terms: Chiefly as Used by Miners and Quarrymen* (London: OUP, 1953)
- The Aviary*, dir. Joseph Cornell (New York, 1955. Film, 14 minutes)
- Bachelard, Gaston, *The Poetics of Space*, trans. by Maria Jolas (Boston: Beacon Press, 1994)
- Bal, Mieke, *Travelling Concepts in the Humanities: a rough guide*, (Toronto: University of Toronto Press, 2002)
- Banham, Mary and Bevis Hillier, *Tonic to the Nation: Festival of Britain 1951* (London: Thames and Hudson, 1976)
- Bastéa, Eleni, *Memory and Architecture* (Albuquerque: University of New Mexico Press, 2004)
- Barthes, Roland, *The Pleasure of the Text*, trans. Richard Miller (New York: Hill and Wang, 1975)
- Barton, David and Nigel Hall, eds. *Letter Writing as a Social Practice* (Amsterdam: John Benjamins, 1999)
- The Beginning of History*, dir. by Graham Wallace (For the Ministry of Information, U.K./ BFI, 1946. Film. Short and long versions), <<http://explore.bfi.org.uk/4ce2b6f32a6a8>>
- Beiser, Frederick C., ed., *The Early Political Writings of the German Romantics*, trans. Frederick C. Beiser (Cambridge: Cambridge University Press, 1996)
- *The Romantic Imperative: the Concept of Early German Romanticism* (Cambridge, MA: Harvard University Press, 2003)
- Benjamin, Walter, *The Arcades Project*, trans. Howard Eiland and Kevin McLaughlin (Cambridge, MA: Belknap Press Harvard University, 2002)
- *Illuminations*, ed. and introduction by Hannah Arendt, trans. by Harry Zohn, (London: Fontana, 1982)

- *Reflections: Essays, Aphorisms, Autobiographical Writing*, trans. Peter Demetz (New York: Schocken Books, 1986)
- *Selected Writings Volume 2, 1927–1934*, trans. by Rodney Livingstone and others, ed. by Michael W. Jennings, Howard Eiland and Gary Smith (Cambridge, MA: Belknap Press Harvard University, 1999)
- *Walter Benjamin's Archive*, trans. Esther Leslie (London: Verso, 2007)
- Bernstein, J.M., ed. *Classic and Romantic German Aesthetics* (Cambridge: Cambridge University Press, 2003)
- Betty, J.H., *The Island and Royal Manor of Portland: Some Aspects of Its History with Reference to the Particular 1750–1851* (The Court Leet of the Island and Royal Manor of Portland in association with University of Bristol Dept. Extra-Mural Studies, 1970)
- Bezzant, Norman, *Out of the Rock*, The Bath and Portland Group (London: Heinemann, 1980)
- Birmingham, David, *A Concise History of Portugal* (Cambridge: Cambridge University Press, 1993)
- Blanchot, Maurice, *The Space of Literature*, trans. and introduction by Ann Smock (Lincoln, NB: University of Nebraska Press, 1989)
- *Writing the Disaster*, trans. and introduction by Ann Smock (Lincoln, NB: University of Nebraska Press, 1995)
- Block, Philippe, Matt DeJong, and John Ochsendorf, 'As Hangs the Flexible Line: Equilibrium of Masonry Arches' *Nexus Network Journal*, Vol. 8, No. 2, (2006), 13–24. <doi: 10.1007/s00004-006-0015-9> [accessed: 26 February 2015]
- Bödeker, Hans Erich. 'Letters as historical resources – Some concluding reflections' *Reading, Interpreting and Historicizing: Letters as Historical Sources* ed. by Regina Schulte and Xenia von Tippelskirch, (European University Institute, Florence, Department of History and Civilization, EUI Working Paper HEC No. 2004/2) <http://webdoc.sub.gwdg.de/ebook/p/2005/european_univ.../HEC04-02.pdf> [accessed: 21 January 2013]
- Braun, Theodore E.D. and John B. Radner, ed. *The Lisbon Earthquake of 1755: Representations and Reactions* (Oxford: The Voltaire Foundation, 2005)
- Brunsdon, Denys, Ken Coombe, Andrew S. Goudie and Adrian G. Parker, 'The structural geomorphology of the Isle of Portland, southern England' *Proceedings of the Geologists' Association* Vol.107, No. 3 (1996) 209–30. <doi:10.1016/S0016-7878(96)80030-7> [accessed: 20 November 2010]
- and J. Doornkamp, *The Unquiet Landscape*, (London: David and Charles, 1972)
- Burke, Edmund, *A Philosophical Enquiry into the Sublime and the Beautiful*, ed. by Paul Guyer (Oxford: Oxford University Press, 2015)
- Cairns, Stephen, *Drifting: Architecture and Migrancy* (London: Routledge, 2004)

- and Jane M. Jacobs *Buildings Must Die: A Perverse View of Architecture* (Cambridge, MA: MIT Press, 2014)
- Calvino, Italo, *The Literature Machine: Essays*, trans. Patrick Creagh (London: Secker & Warburg, 1987)
- *The Castle of Crossed Destinies*, trans. William Weaver (London: Pan Books, 1978)
- Cantrill, Arthur and Corrine Cantrill eds., *Cantrills Filmnotes*. (funded by Australian Film Commission, published from 1971–2000)
- Carter, Paul, *Material Thinking: The Theory and Practice of Creative Research* (Melbourne: Melbourne University Press, 2004)
- Casey, Edward S., *The Fate of Place: A Philosophical History* (Berkeley, CA: University of California Press, 1997)
- Cate, Curtis, *Friedrich Nietzsche* (London: Hutchinson, 2002)
- City of Thun. Map: ‘Oberes Iseli’ (Upper Islet) by the City of Thun information map. <http://www.city-info.ch/ut_thun/de-karten-ansicht.html?mapid+19> [accessed: 24 September 2013]
- Chien Andalou*, dir. Luis Buñuel and Salvador Dalí (France, 1929. Film, 16 minutes)
- Clifton-Taylor, Alec and A.S. Ireson, *English Stone Building*, (London: Gollancz in association with Peter Crawley, 1983)
- Crocker, Lester G., ‘The Discussion of Suicide in the Eighteenth Century’ *Journal of the History of Ideas*, Volume 13, No. 1, Jan. (1952), 47–72. <<http://www.jstor.org/stable/20707725>> [accessed: 29 January 2014]
- Coombe, E.D.K., *Some Aspects of Coastal Landslips and Cliff-falls at Portland* (unpublished thesis in the Bodleian Library, Oxford and the School of Geography, Oxford, 1981)
- Cooper, M.A.R., *A More Beautiful City: Robert Hooke and the Rebuilding of London after the Great Fire* (Stroud: Sutton, 2003)
- Cosgrove, Denis E., *Mappings* (London: Reaktion Books, 1999)
- and Stephen Daniels, *The Iconography of Landscape: Essays on the Symbolic Representation, Design and Use of Past Environments* (Cambridge: Cambridge University Press, 1988)
- Crampton, Jeremy W., and Stuart Elden, eds., *Space, Knowledge and Power: Foucault and Geography* (Aldershot: Ashgate, 2007)
- Crocker, Lester G., ‘The Discussion of Suicide in the Eighteenth Century’, *Journal of the History of Ideas*, Volume 13, No. 1, (January 1952), 47–52. <<http://www.jstor.org/stable/20707725>> [accessed: 29 January 2014]
- Crane, David, *Empires of the Dead: How One Man’s Vision Led to the Creation of WWI’s Imperial War Graves* (London: William Collins, 2013)
- Cuvier, Georges, *Essay on the Theory of the Earth* [facsimile copy] (London: Routledge in association with the Natural History Museum, 1813/2003)
- Darley, Gillian, *John Soane: An Accidental Romantic* (New Haven: Yale University Press, 1999)
- Davey, Norman, *A History of Building Materials* (London: Phoenix House, 1961)

- Daybell, James, *The Material Letter in Early Modern England: Manuscript Letters and the Culture and Practices of Letter-Writing, 1512–1635* (Basingstoke: Palgrave Macmillan, 2012)
- Dean, Tacita, *Save this Language*, (BBC Radio 4, 17 April 2014) <<http://www.bbc.co.uk/programmes/b04ollzm>>
- Deleuze, Giles and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. and foreword by Brian Massumi (Minneapolis: University of Minnesota Press, 1994)
- Dent, Nicholas, *Rousseau* (Oxford: Routledge 2005)
- Dillon, Brian, *Ruin Lust: Artists' Fascination with Ruins from Turner to the Present Day*, (London: Tate Publishing, 2014)
- Dorset County Council, *The stone industry on Portland: report of the working party* (sponsored by Dorset County Council, Weymouth and Portland Borough Council, the Bath and Portland Group Ltd. Weymouth: Dorset County Council. 1977)
- Dorset Echo*, 7 January 2014, 'The rock stack known as "Pom Pom Rock" collapsed in severe weather'. <http://www.dorsetecho.co.uk/news/10917636.Ancient_rock_stack_on_Portland_Bill_destroyed_by_high_seas/>
- Drake, E.T., *Restless Genius: Robert Hooke and his Earthly Thoughts*, including reprint of "Lectures and discourses of earthquakes and subterraneous eruptions" from: *Posthumous works of Robert Hooke* (London: R. Waller, 1705. Oxford: Oxford University Press, 1996)
- Donald, James, ed., *Fantasy and the Cinema* (London: BFI Publishing, 1989)
- Dubbini, Renzo, *Geography of the Gaze: Urban and Rural Vision in Early Modern Europe*, trans. Lydia G. Cochrane (Chicago: University of Chicago Press, 2002)
- Earle, Rebecca, *Epistolary Selves: Letters and Letter-Writers 1600–1945* (Aldershot: Ashgate, 1999)
- Eaton, Mick and Steve Neale, eds., *Screen Reader II: cinema & semiotics*, (London: Society for Education in Film and Television, 1981)
- Eco, Umberto, *The Open Work*, trans. Anna Cancogni (London: Hutchinson Radius, 1989)
- Eisenstein, Serge, *The Film Form: Essays in Film Theory*, trans. and ed. by Jay Leyda (New York: Harcourt Brace Jovanovich, 1949)
- *Film Sense*, trans. and ed. Jay Leyda (London: Faber, 1968)
- Elden, Stuart, *The Birth of Territory* (Chicago: Chicago University Press, 2013)
- and Eduardo Mendita, *Reading Kant's Geography* (Albany: State University of New York Press, 2011)
- Ellis, John, ed. *Screen Reader I: cinema/ideology/politics* (London: SEFT, 1977)
- Falcon-Lang, Howard 'Classic localities explained 7: the Isle of Portland, Dorset, England' *Geology Today* Vol. 27, No. 1, (January–February 2011), 34–38. <doi: 10.1111/j.1365-2451.2011.00780.x> [accessed: 18 February 2015]

- Figures in a Landscape*, dir. Dudley Shaw Ashton (BFI Experimental Film Fund, 1953. Film, 18 minutes) BFI<<http://explore.bfi.org.uk/4ce2b9fe9263f>>
- Film as Film: formal experiment in film 1910–1975*. Hayward Gallery, South Bank, London, SE1. 3 May – 17 June 1979. Arts Council of Great Britain.
- Finn, Christine, *A life on line: Jacquetta Hawkes, archaeo-poet 1910–1996*, < <http://humanitieslab.stanford.edu/ChristineFinn/Home>> [accessed: 10 September 2012]
- ‘Ways of telling: Jacquetta Hawkes as a film-maker’, *Antiquity* Vol.74, (2000), 127–30. < doi:10.1017/S0003598X00066229> [accessed: 10 September 2012]
- Fischer, Bernd and Timothy J. Mehigan, *Heinrich von Kleist and Modernity*, (Rochester: Camden House, 2011)
- Forty, Adrian and Susanne Küchler, eds. *The Art of Forgetting* (Oxford: Berg, 1999)
- Foucault, Michel, *Aesthetics, Method and Epistemology: essential works of Foucault 1954–1984. Volume 2, (Dits et écrits, 1954–1984)*, trans. by Robert Hurley and others ed. by James D. Faubion (London: Penguin, 1998)
- *The Archeology of Knowledge*, trans. A.M. Sheridan Smith (New York: Tavistock Publications, 1972)
- *The Order of Things: An Archaeology of the Human Sciences*, ed. R.D.Laing (London: Routledge, 2000)
- “*Society Must be Defended*”: *Lectures at the Collège de France 1975–76*, trans. by David Macey, ed. by Mauro Bertani and Alessandro Fontana (London: Penguin Books, 2004)
- *Language, Counter-Memory, Practice: Selected Essays and Interviews*, ed. by Donald Fernand Bouchard, trans. by Sherry Simon (Oxford: Blackwell, 1977)
- Framework*, (initially published from Warwick University, later University of East Anglia, 1974–1992)
- Frank, Manfred, *The Philosophical Foundations of Early German Romanticism*, trans. and introduction by Elizabeth Millán-Zaibert (Albany: State University of New York Press, 2004)
- French, Arthur W. and Howard Chapin Ives, *Stereotomy* (New York: John Wiley & Sons, Second ed., revised, 1930)
- Fullbrook, Mary, *A Concise History of Germany* (Cambridge: Cambridge University Press, 1990)
- Gawthorp, Richard L., *Pietism and the making of eighteenth-century Prussia* (Cambridge: Cambridge University Press, 1993)
- Grant, Simon, ‘Notes from An Ancient Island’, *Nancy Holt Interview, Tate Etc.* Issue 25 (23 May 2012) 97–103.
- Gibson, Ross, ‘Camera Natura: Landscape in Australian feature films’ *Framework* 22/23 (Autumn, 1983), 47–51.
- Goethe, Johann Wolfgang von, *Letters from Goethe*, trans. by M. von Herzfeld

- C. Melville Sym, introduction by W.H. Bruford (Edinburgh: Edinburgh University Press, 1957)
- *The Sorrows of Young Werther* trans. and introduction by Michael Hulse (London: Penguin, 1989)
- *Scientific Studies: Volume 12. Goethe: The Collected Works*, trans. and edited by Douglas Miller, (Princeton: Princeton University Press, 1995)
- Gorse, Christopher A., David Johnston and Martin Pritchard, *A Dictionary of Construction, Surveying, and Civil Engineering*, (Oxford: Oxford University Press, 1988)
- The Guardian*, 25 July, 2012. <<http://www.theguardian.com/uk/2012/jul/25/woman-dies-cliff-collapses-dorset>>
- The Guardian*, 18 October 2006. Obituary: Danièle Huillet. <<http://www.guardian.co.uk/news/2006/oct/18/guardianobituaries.france>>
- Hamacher, Werner, *Premises: Essays on Philosophy and Literature from Kant to Celan*, trans. Peter Fenves (Cambridge, MA: Harvard University Press, 1996)
- Hamm, E.P. 'Unpacking Goethe's collections: the public and the private in natural-historical collecting' *The British Journal for the History of Science* Vol. 34 Issue 3, (September 2001), 275–300. <doi: 10.1017/S0007087401004423> [accessed: 28 April 2014]
- Hardy, Thomas, *The Well-Beloved: A Sketch of Temperament* (London: Everyman, 1997)
- Harris, Alexandra, *Romantic Moderns: English Writers, Artists and the Imagination from Virginia Woolf to John Piper* (London: Thames & Hudson, 2010)
- Harrison, Charles and Paul Wood, eds. *Art in Theory 1900–1990: An Anthology of Changing Ideas* (Oxford: Blackwell Publishers, 1993)
- Hawkes, Jacquetta, *A Land* (London: Readers Union, Cresset Press, 1953)
- *A Land* (London: David and Charles, 1978)
- 'The Beginning of History: a film', *Antiquity*, Vol. 20, No. 78, (1946), 78–82. <doi: 10.1017/S0003598X00019402> [accessed: 10 September 2012]
- *Early Britain* (London: Collins, 1945)
- 'The Origin of the British People: Archaeology and the Festival of Britain' *Antiquity*. Vol. 25, No. 97, (1951), 4–8. <doi: 10.1017/S0003598X00020639> [accessed: 10 September 2012]
- Healy, Róisín 'Suicide in Early Modern Europe' *The Historical Journal* Vol. 49, No. 3. (2006), 903–19. <doi: 10.1017/S0018246X06005577> [accessed 29 January 2014]
- Heaney, Seamus, *Opened Ground: Poems 1966–1996* (London: Faber and Faber, 1998)
- Heidegger, Martin, *Basic Writings from "Being and Time" 1927 to "the Task of Thinking" 1964*, ed. by David Farrell Krell (London: Routledge, 1993)
- Helbling, Robert E., *The Major Works of Heinrich von Kleist* (New York: New

- Directions, 1975)
- Hell, Julia and Andreas Schönle, eds., *Ruins of Modernity* (Durham: Duke University Press, 2010)
- Heyman, Jacques, *Arches, Vaults and Buttresses* (Aldershot: Variorum Publishers, 1996)
- *Structural Analysis: a historical approach* (Cambridge: Cambridge University Press, 1998)
- Hill, Jonathan, *Weather Architecture* (London: Routledge, 2012)
- Hiller, Susan, *After the Freud Museum* (London: Book Works, 2000)
- Hockenhull, Stella, *Neo-Romantic Landscapes: An Aesthetic Approach to the Films of Powell and Pressburger* (Newcastle: Cambridge Scholars, 2008)
- Hölderlin, Friedrich, *Hyperion and Selected Poems* (London: Continuum, 1990)
- *Poems and Fragments*, trans. by Michael Hamburger (London: Anvill Press Poetry, 1994)
- Hooke, Robert, *A Description of Heilosopes and Some Other Instruments Made by R.H.* (London: printed by John Martyn, printer to the Royal Society, 1676)
- Horizon 15 ‘Why Can’t We Predict Earthquakes?’ (BBC 4 television, 11 June 2013)
- Hoskins, W.G., *The Making of the English Landscape* (Harmondsworth: Penguin, 1977)
- Howe, Steven, *Heinrich von Kleist and Jean-Jacques Rousseau: Violence, Identity, Nation* (New York: Camden House, 2012)
- Hull, Isabel V., “‘Vom recht auf den eigenen Tod’: Die Geschichte des Suizids vom 18. Bis zum 20. Jahrhundert by Ursula Baumann’, Book Review. *Central European History* Vol. 37, Issue 4, (December, 2004) <doi: 10.1017/S0008938900003083> [accessed 29 January 2014]
- Hume, David, *Essays on Suicide and the Immortality of the Soul: By the Late David Hume, Esq. With Remarks by the Editor. To Which Are Added, Two Letters on Suicide, from Rousseau’s Eloisa, A New Edition* (Basil: printed for the editor of the Collection of English classics. Sold by James Decker, Printer and Bookseller, 1799)
- *Selected Essays*, Stephen Copley and Andrew Edgar, eds. (Oxford: Oxford University Press, 2008)
- The Island of Stone* (U.K. Pathé News, 1934. Film, 2 minutes) <<http://www.britishpathe.com/video/the-island-of-stone-portland>>
- Isle of Portland (Casltetown)* 1927, Old Ordnance Survey Maps (Gateshead: Alan Godfrey, n.d.)
- Isle of Portland (Fortuneswell & Grove)* 1927, Old Ordnance Survey Maps (Gateshead: Alan Godfrey, n.d.)
- Isle of Portland (Easton & Weston)* 1927, Old Ordnance Survey Maps (Gateshead: Alan Godfrey, n.d.)
- Isle of Portland (Southwell)* 1926, Old Ordnance Survey Maps (Gateshead: Alan Godfrey, n.d.)

- Inwood, Stephen, *The Man Who Knew too Much: The Inventive Life of Robert Hooke, 1635–1703* (London: Pan, 2003)
- The Ister*. dir. David Barison and Daniel Ross (Australia. 2004. Film, 189 minutes)
- Janson, H. W., *A History of Art* (London: Thames and Hudson, 1977)
- Jardine, Lisa, *The Curious Life of Robert: the Man who Measured London* (London: HarperCollins, 2004)
- Jenkins, Jennifer, *Remaking the Landscape: The Changing Face of Britain* (London: Profile, 2002)
- Kafka, Franz, *The Diaries of Franz Kafka*, ed. by Max Brod (London: Penguin Books, 1982)
- *The Castle*, trans. Willa and Edwin Muir (Harmondsworth: Penguin, 1979)
- *The Trial*, trans. Willa and Edwin Muir (Harmondsworth: Penguin, 1960)
- *Letters to Felice*, ed. by Erich Heller and Jürgen Born, trans. by James Stern and Elisabeth Duckworth (New York: Schocken Books, 1973)
- Kant, Immanuel, *Critique of Pure Reason*, trans., ed. and intro. by Paul Guyer and Allen W. Wood. (Cambridge: Cambridge University Press, 2005)
- *Critique of Practical Reason*, trans. and ed. by Mary J. Gregor (Cambridge: Cambridge University Press, 2005)
- *Essays and Treatises on moral, political, religious and various philosophical subjects*, From the German by the Translator of the Principles of Critical Philosophy. Vol. II. (London: William Richardson, 1799)
- *Groundwork of the Metaphysics of Morals*, trans. and ed. Mary Gregor and Jens Timmermann (Cambridge: Cambridge University Press, 2012)
- *Lectures on Logic*, trans. and ed. J. Michael Young (Cambridge: Cambridge University Press, 1992)
- *Natural Philosophy*, ed. by Eric Watkins, trans. by Lewis White Beck, Jeffrey B. Edwards, Olaf Reinhardt, Martin Schönfeld and Eric Watkins (Cambridge: Cambridge University Press, 2012)
- *Kant: Political Writings*, ed. by Hans Reiss, trans. by H.B. Nisbet (Cambridge: Cambridge University Press, 1991)
- *Prolegomena to Any Future Metaphysics That Will Be Able to come Forward as Science: With Selections from the Critique of Pure Reason*, trans. and ed. by Gary Hatfield (Cambridge: Cambridge University Press, 1999)
- *Theoretical Philosophy 1755–1770*, trans. and ed. by David Walford, in collaboration with Ralf Meerbote (Cambridge: Cambridge University Press, 1992)
- Kaye, Nick, *Site-Specific Art: Performance, Place and Documentation* (London: Routledge, 2007)
- Kendrick, T. D., *The Lisbon Earthquake* (London: Methuen, 1956)
- Kenyon, Frederic, *War Graves. How the Cemeteries Abroad will be Designed*, Report to the Imperial War Graves Commission by Lieut.-Colonel Sir Frederic Kenyon K.C.B, Director of the British Museum (London: His Majesty's Stationery Office, 1918)

- Kleist, Heinrich von, *An Abyss Deep Enough: Letters of Heinrich von Kleist with a selection of Essays and Anecdotes*, trans., ed., and introduction by Philip B. Miller (E.P. Dutton: New York, 1982)
- *Five Plays*, trans. by Martin Greenberg (New Haven: Yale University Press, 1988)
- *The Marquise of O— and other Stories*, trans. and introduction by David Luke and Nigel Reeves (London: Penguin, 1978)
- *Penthesilea: A Tragic Drama*, trans. by Joel Agee, illustrated by Maurice Sendak (New York: Harper Collins, 1998)
- *Penthesilea: Ein Trauerspiel*, [Facsimile reprint of the original edition, Tübingen: Cotta, 1808], (Frankfurt am Main: Insel, 1980)
- *Plays*, trans. by Walter Hinderer (New York: Continuum, 1982)
- *Sämtliche Werke*, Berliner Ausg. Band 4:1, Herausgegeben von Roland Reuss und Peter Staengle (Basel; Frankfurt am Main: Stroemfeld/Roter Stern, 1988)
- *Sämtliche Werke und Briefe*, Herausgegeben von Helmut Sembdner, Zweiter Band (München: Carl Hanser Verlag, 1984)
- *Sämtliche Werke und Briefe: Erzählungen, Anekdoten, Gedichte, Schriften*, Herausgegeben von Klaus Müller-Salget, Band 3 (Frankfurt am Main, 1990)
- *Selected Prose*, trans., with an afterword by Peter Worstman (New York: Archipelago Books, 2010)
- *Selected Writings*, trans. and ed. by David Constantine (London: Dent, 1997)
- , Ludwig Tieck and E.T.A. Hoffmann, *Six German Romantic Tales*, trans. by Ronald Taylor (London: Angel, 1985)
- Kracauer, Siegfried, *From Caligari to Hitler: a psychological study of the German film* (Princeton: Princeton University Press, 1974)
- Kreider, Kristen, *Poetics + Place: The Architecture of Sign, Subjects + Site* (London: I.B.Tauris, 2014)
- Kuhn, Annette, *The Women's Companion to International Film* (London: Virago Press, 1990)
- Kwon, Miwon, *One Place after Another: Site Specific Art and Locational Identity* (Cambridge, MA: MIT Press, 2004)
- Lang, Jane, *Rebuilding St. Paul's after the Great Fire of London* (Oxford: Oxford University Press, 1956)
- Larsen, Svend Erik, 'The Lisbon earthquake and the scientific turn in Kant's philosophy', *European Review*, Volume 14 Issue 03, (July 2006), 359–67. <doi: 10.1017/S1062798706000366> [accessed: 11 June 2013]
- Leask, Nigel, *Curiosity and the Aesthetics of Travel-Writing 1770–1840: From an Antique Land* (Oxford: Oxford University Press, 1980)
- Leslie, Esther, 'Art, documentary and the essay film', *Radical Philosophy*, 192, (July/Aug 2015), 7–14. <rp192_dossier_essay_film_leslie_art_documentary_essay_film.pdf> [accessed: 15 July 2015]
- Lipton, Lenny, *Independent Filmmaking*, introduction by Stan Brakhage (New York: Simon & Schuster, 1972)

- Liscombe, R.W., *William Wilkins, 1778–1839* (Cambridge: Cambridge University Press, 1980)
- Livingstone, David N. and Charles W.J. Withers, *Geography and Enlightenment* (Chicago: University of Chicago Press, 1999)
- Lloyd, Martin, *The Passport: The History of Man's Most Travelled Document* (Stroud: Sutton, 2003)
- Lorrimer, Hayden, 'Memoirs for the Earth: Jacquetta Hawkes's literary experiments in deep time', *Cultural Geographies*. Vol. 19, No 1. (January 2012), 87–106. <doi: 10.1177/1474474011432377> [accessed: 18 February 2015]
- Lost, Lost, Lost*, dir. Jonas Mekas (New York, 1976. Film, 178 minutes)
- Lukács, Georg, *German Realists in the Nineteenth Century*, trans. Jeremy ed. Gaines and Paul Keast, introduction by Rodney Livingstone (London: Libris, 1993)
- Maass, Joachim, *Kleist: a biography*, trans. Ralph Manheim (New York: Farrar, Straus and Giroux, 1983)
- *Kleist: Die Geschichte Seines Lebens* (Bern: Scherz, 1977)
- MacDonald, Scott, 'Lost Lost Lost over *Lost Lost Lost*', *Cinema Journal*, Vol. 25, No. 2 (Winter 1986), 20–34. <<http://www.jstor.org/stable/1225457>> [accessed: 21/5/2013]
- Mackay, Robin, ed., *Collapse: Philosophical Research and Development*, Vol. VI (Falmouth: Urbanomic, 2012)
- Madsen, J. 'Cutting Through the Seventies to Find the Thirties: A Consideration of *Fortini-Cani* as Marxist Reflection' in T. O'Regan & B. Shoesmith eds. *History on/and/in Film* (Perth: 1987), 159–65. <mcc.murdoch.edu.au/ReadingRoom/hfilm/contentth.htm>
- Malsch, Sara Ann, *The Image of Martin Luther in the Writings of Novalis and Friedrich Schlegel. The Speculative Vision of History and Religion* (Bern: Herbert Lang; Frankfurt am Main: Peter Lang, 1974)
- Man with a Movie Camera*, dir. by Dziga Vertov, (VUFKU, Moscow, 1929. Film, 68 minutes)
- Massumi, Brian, 'The half-life of disaster', *The Guardian*, 15 April 2011.
- Matless, David, *Landscape and Englishness* (London: Reaktion, 1998)
- Mehigan, Tim, *Heinrich von Kleist: Writing after Kant* (Rochester, N.Y.: Camden House, 2011)
- MEMO project, *Independent*, 17 June 2012 <<http://www.independent.co.uk/news/uk/this-britain/for-whom-the-bell-tolls-20m-memo-project-takes-shape-on-dorsets-jurassic-coast-7848566.html>>
- Miller, Hugh, *Hugh Miller's Memoir: From Stonemason to Geologist*, ed. and introduction by Michael Shortland (Edinburgh: Edinburgh University Press, 1995)
- *The Testimony of the Rocks* (Edinburgh: William P. Nimmo, 1869)
- Mitchell, W.J.T., ed., *Landscape and Power* (Chicago: University of Chicago

- Press, 2002)
- Morris, Stuart, *Portland* (Wimborne: The Dovecote Press, 2009)
- Mothlight* dir. Stan Brakhage (New York, 1963. Film, 4 minutes)
- Muir, Richard, 'Reading the landscape, rejecting the present'
Landscape Research, Vol. 23, No.1 (1998), 71–82. <doi:
 10.1080/01426399808706526> [accessed 18 February 2015]
- Nelson, Robert S. and Margaret Rose Olin, *Monuments and Memory, Made and Unmade*, (Chicago: University of Chicago Press, 2003)
- Nietzsche, Friedrich, *The Anti-Christ, Ecce Homo, Twilight of the Idols and Other Writings*, trans. by Judith Norman, ed. Judith Norman and Aaron Ridley (Cambridge: Cambridge University Press, 2005)
- *The Gay Science: With a Prelude in German Rhymes and An Appendix of Songs*, trans. by Josefine Nauckhoff, ed. by Bernard Williams (Cambridge: Cambridge University Press, 2001)
- *Friedrich Nietzsche: Writings From the Early Notebooks*, trans. Ladislaus Löb, ed. by Raymond Geuss and Alexander Nehamas (Cambridge: Cambridge University Press, 2009)
- *Twilight of the Idols: And the Anti-Christ*, trans. by R.J. Hollingdale (London: Penguin, 1990)
- *Unfashionable Observations*, trans. with an afterword Richard T. Gray (Stanford: Stanford University Press, 1995)
- *Unpublished Writings: from the period of 'Unfashionable Observations'*, trans. and afterword Richard T. Gray (Stanford: Stanford University Press, 1999)
- *Untimely Meditations*, trans. by R.J. Hollingdale, ed. by Daniel Breazeale (Cambridge: Cambridge University Press, 1997)
- *Writings From the Late Notebooks*, trans. and ed. Rudiger Bittner (Cambridge: Cambridge University Press, 2002)
- Novalis, *Fichte Studies*, trans. and ed. by Jane Kneller (Cambridge: Cambridge University Press, 2003)
- *Hymns to the Night*, trans. Dick Higgins (Kingston, N.Y.: McPherson, 1988)
- *Notes for a Romantic Encyclopaedia: Das Allgemeine Brouillon*, trans., ed., and introduction by David W. Wood (Albany: State University of New York Press, 2007)
- *The Novices of Sais*, trans. by Ralph Manheim, illustrations by Paul Klee (New York: Archipelago Books, 2005)
- *Philosophical Writings*, trans. and ed. by Margaret Mahony Stoljar (Albany: State University of New York Press, 1997)
- Oldroyd, David, *Earth Cycles: A Historical Perspective* (Westport: Greenwood Press, 2006)
- *Thinking about the Earth: A History of Ideas in Geology* (London: Althone, 1996)
- Onde jaz o teu sorriso? (Where does your hidden smile lie?)*, dir. by Pedro Costa, (Portugal/France. 2001. Film, 104 minutes)

- O'Pray, Michael, *Avant-Garde Film: forms, themes, and passions* (London: Wallflower Press, 2003)
- Paice, E., *Wrath of God: the great Lisbon Earthquake of 1755* (London: Quercus, 2008)
- Perec, Georges, *Species of Spaces and Other Pieces*, trans. and ed. John Sturrock (London: Penguin, 2008)
- Pérez-Gómez, Alberto, *Architecture and the Crisis of Modern Science* (Cambridge, MA: MIT Press, 1983)
- Pickles, John, *A History of Spaces: Cartographic Reason, Mapping, and the Geo-Coded World* (London: Routledge, 2004)
- Pippard, A.J.S., *The Experimental Study of Structures* (S.I.: Edward Arnold, 1947)
- Pirandello, Luigi. *Shoot! (Si Gira)*, trans. by C.K. Scott Moncrieff, *The Garland Classics of Film Literature*, [Reprint of 1926 edition] (New York: Garland Publishers, 1978)
- Poirier, Jean-Paul, 'The 1755 Lisbon disaster, the earthquake that shook Europe', *European Review*, Volume 14, Issue 2, (May 2006), 169–80. <doi: 10.1017/S1062798706000172> [accessed 3 December 2013]
- Porter, Roy, *Enlightenment* (London: Penguin Books, 2000)
- *The Making of Geology: Earth Science in Britain 1660–1815* (Cambridge: Cambridge University Press, 2008)
- Portland Stone* (U.K. Pathé News. 1955. Film, 2 minutes) <<http://www.britishpathe.com/video/portland-stone>>
- Prospect 69*, Dusseldorf, Städtische Kusthalle, September 30 - October 12, 1969. Exhibition catalogue. Edited by Seth Siegelaub. Exhibition conceived of and organized by Konrad Fischer and Hans Strelow.
- Radlet-de Grave, Patricia and Edoardo Benvenuto, *Entre Mécanique et Architecture / Between Mechanics and Architecture* (Basel: Birkhäuser Verlag, 1995)
- Rees, A.L., Dave Curtis, Duncan White and Steven Ball eds. *Expanded Cinema: art, performance, film* (Tate Publications: London, 2011)
- Reinhardt, O. and D.R. Oldroyd, 'Kant's Theory of Earthquakes and Volcanic Action', *Annals of Science* 40:3, (1983), 247–72. <doi: 10.1080/00033798300200221> [accessed: 27 July 2009]
- and —, 'Kant's Thoughts on the Ageing of the Earth' *Annals of Science* 39:4, (1982), 349–69. <doi: 10.1080/00033798200200461> [accessed: 27 July 2009]
- Rendell, Jane, *Art and Architecture: A Place Between* (London: I.B. Tauris, 2008)
- *Site Writing: The Architecture of Art Criticism* (London: I.B. Tauris, 2010)
- Reynolds, Ann, *Robert Smithson: Learning from New Jersey and Elsewhere* (Massachusetts: MIT Press, 2003)
- Riccobono, Rosella M. ed., *The Poetics of the Margins: mapping Europe from the interstices* (Bern: Peter Lang, 2011)
- Richardson, Margaret and Gillian Darley, *John Soane: Architect* (New Haven:

- Yale University Press, 1999)
- Rödl, Sebastian, *Self-Consciousness* (Cambridge: Harvard University Press, 2005)
- Roseman, Mark, ed., *Generations in Conflict: youth revolt and generation conflict in Germany 1770–1968* (Cambridge: Cambridge University Press 1995)
- Rousseau, Jean Jacques, *The ‘Discourses’: and other early political writings*, trans. and ed. Victor Gourevitch (Cambridge: Cambridge University Press, 2004)
- Ruberg, Willemijn ‘Letter Writing and Elite Identity in the Netherlands 1770–1850’, *Scandinavian Journal of History* 30:3–4, (September 2005), 249–58. <doi: 10.1080/03468750500272579> [accessed: 26 January 2013]
- Ruiz, Raúl, *Poetics of Cinema*, trans. Brian Holmes (Paris: Éditions Disvoir, 1995)
- Said, Edward, *Culture and Imperialism* (London: Vintage, 1994)
- Samuel, R.H. and H.M. Brown, *Kleist’s Lost Year and the Quest for Robert Guiskard* (Leamington Spa: James Hall, 1981)
- Sandford, John, *The New German Cinema* (London: Eyre Methuen, 1980)
- Le Sang d’un poète (The Blood of the Poet)*, dir. Jean Cocteau (France, 1930. Film, 55 minutes)
- Schiffman, Robyn L., ‘Werther and the epistolary novel’, *European Romantic Review*, Vol. 19, No. 4., 421–38. <doi: 10.1080/10509580802407318> [accessed: 29 July 2013]
- Sharp, Jill, *Written in Stone: England’s Literary Heritage* (Swindon: English Heritage, 2005)
- Shrady, N., *The Last Day: wrath, ruin and reason in the great Lisbon Earthquake of 1755* (New York: Viking Penguin, 2009)
- Sheehan, James, *German History: 1770–1866* (Oxford: Clarendon, 1993)
- Shore, B.C.G., *The Stones of Britain: A Pictorial Guide to Those in charge of Valuable Buildings* (London: Leonard Hill Books, 1957)
- Siebert, Eberhard, Herausgegeben, *Heinrich von Kleist: Leben und Werk im Bild* (Frankfurt am Main: Insel Verlag, 1980)
- Sitney, P. Adams, *Visionary Film: The American Avant-Garde* (Oxford: Oxford University Press, 1974)
- Smithson, Robert, *Robert Smithson: The Collected Writings*, ed. by Jack Flam (Berkley: University of California Press, 1996)
- *Unearthed: Drawings, Collages, Writings*, ed. by Eugenie Tsai (New York: Columbia University Press, 1991)
- Solnit, Rebecca, *A Field Guide to Getting Lost* (Edinburgh: Canongate, 2006)
- *Wanderlust: A History of Walking* (London: Verso, 2002)
- La Sortie de l’Usine Lumière a Lyon, (Workers Leaving the Factory)*
dir. August and Louis Lumière (France, 1895. Film, 1 minute)
- Stephanides, Stephanos and Susan Bassnet, ‘Islands, Literature and Cultural Translatability’, *transtexte(s): transcultures, Journal of Global Cultural Studies* (2008) 5–21. <doi: 10.4000/transtexts.212> [accessed 29 March 2012]

- Stiegler, Bernard, *Technics and Time, 1: The Fault of the Epimetheus*, trans. by Richard Beardsworth (Stanford: Stanford University Press, 1998)
- Stokes, Adrian, *The Image in Form: Selected Writings of Adrian Stokes*, ed. by Richard Wollheim (Harmondsworth: Penguin, 1972)
- *The Stones of Rimini* (New York: Schocken Books, 1969)
- Schiffman, Robyn, 'Werther and the Epistolary Novel', *European Romantic Review*, Volume 9, No. 4, (October 2008) 421–38. <DOI: 10.1080/10509580802407318> [accessed: 29 July 2013]
- Sullivan, Heather I., 'Collecting the rocks of time: Goethe, the romantics and early geology', *European Romantic Review* Vol. 10, Issue 1–4, (September 2001) 341–70. <doi: 10.1080/10509589908570085> [accessed: 28 April 2014]
- Summerson, John, *Inigo Jones* (Harmondsworth: Penguin, 1966)
- Thomas, Jo, *Stone Quarrying* (Wimborne: Dovecote, 1998)
- Thornes, John B. and Denys Brunsden *Geomorphology and Time* (London: Methuen, 1977)
- Tieck, L. and E.T.A. Hoffmann, *Novellas of Ludwig Tieck and E.T.A. Hoffmann*, trans. by Thomas Carlyle, introduction by Eitel Timm (Columbia: Camden House, 1991)
- The Times*, London, 28 December 1811.
- Todorov, Tzvetan, *Introduction to Poetics* (Brighton: Harvester, 1981)
- Trinity House. http://www.trinityhouse.co.uk/lighthouses/lighthouse_list/portland_bill.html
- Tronzo, William, *The Fragment: An Incomplete History*, (Los Angeles: Issues & Debates, Getty Research Institute, 2009)
- Undercut* (London Filmmakers Co-Operative, 19 issues from 1981–1990)
- Undercut*, Special Issue on Landscape in Film, Photography and Video, Number 7/8 Spring (1983)
- Virilio, Paul, *Bunker Archaeology* (New York: Princeton Architectural Press, 1994)
- Ubu Web: Film & Video <<http://www.ubu.com/film>>
- Walker, Joyce S., 'Sex, Suicide and the Sublime: A reading of Goethe's *Werther*', *Monatshefte* Vol 91, No. 2, (Summer 1999), 208–23. <<http://www.jstor.org/stable/30153789>> [accessed: 29 January 2014]
- Walser, Robert, *Selected Stories*, trans. Christopher Middleton and others (New York: Farrar, Strauss and Giroux, 2012)
- Warren, Samuel Edward, *Stereotomy: Problems in Stone Cutting. In Four Classes Etc.* (New York: John Wiley & Son, 1886)
- Watt, Jeffrey R., *From Sin to Insanity: Suicide in Early Modern Europe* (Ithaca, NY: Cornell University Press, 2004)
- What Mozart Saw on Mulberry Street*, dir. Joseph Cornell (New York, 1956. Film, 9 minutes)
- Wheeler, Mortimer, *Roman Art and Architecture* (London: Thames and Hudson, 1973)

- Where I Am Is Here*, dir. Margaret Tait (Edinburgh, 1964. Film, 35 minutes)
- Williams, Alan, 'Diaries, Notes and Sketches: Volume I ("Lost, Lost, Lost") by Jonas Mekas', Review, *Film Quarterly*, Vol. 30, No. 1. (Autumn, 1976), 60–62. <<http://www.jstor.org/stable/1211688>> [accessed: 21 May 2013]
- Williams, Raymond, *Keywords: A Vocabulary of Culture and Society* (London: Fontana Press, 1983)
- Winchester, Simon, *The Map that changed the World: A Tale of Rocks, Ruin and Redemption* (London: Penguin, 2002)
- Woods, Lebbeus, *Earthquake! A Post-Biblical View* (Wien: Springer, 2001)
- *Lebbeus Woods: Anarchitecture: Architecture is a Political Act* (London: Academy Editions, 1992)
- Youngblood, Gene, *Expanded Cinema* (New York: Dutton, 1970)
- Zweig, Stefan, *The Struggle with the Daemon: Hölderlin, Kleist, Nietzsche*, trans. by Eden and Cedar Paul (London: Pushkin Press, 2013)