

The Role of Geometry in Wordsworth's "Science of Feelings"

Aaron J. Ottinger

A dissertation
submitted in partial fulfillment of the
requirements for the degree of

Doctor of Philosophy

University of Washington

2016

Reading Committee:
Marshall Brown, Co-chair
Raimonda Modiano, Co-chair
Charles LaPorte
Leroy Searle

Program Authorized to Offer Degree:

English

©Copyright 2016
Aaron J. Ottinger

University of Washington

Abstract

The Role of Geometry in Wordsworth's "Science of Feelings"

Aaron J. Ottinger

Chairs of the Supervisory Committee:
Professor Marshall Brown
Comparative Literature
Professor Raimonda Modiano
English

Counter to previous studies of William Wordsworth that have viewed him as dismissive of mathematics, logic, and the fundamental principles of moral feelings, or ignored the connections between these domains, this dissertation presents Wordsworth as imaginatively reprocessing the discipline of geometry through poetry, or what he refers to as a "science of feelings." Despite the many developments occurring in the realm of mathematics in the eighteenth century, Euclid's *Elements* remained the primary source for math and logic in secondary schools and universities. As a teaching tool, Wordsworth regarded Euclid as limiting the power of imagination, ultimately reducing the pupil's ability to sympathize with others. Rather than abandon the place of mathematics in education, the dissertation examines how Wordsworth saw Euclid as fulfilling only a part of a more dynamic and speculative philosophical upbringing. Thus the project reevaluates familiar works in light of a mathematical and historical context, recasting Wordsworth as deeply invested in the ways that poetry could adapt the principles of Euclidean geometry to account for change in human thoughts and feelings.

Contents

Introduction	5
Part I: Practice	
1. Problem	25
Part II: Speculation	
2. Theorem	54
Part III: Logic	
3. Postulate	89
4. Definition	130
Conclusion: Axiom	160
Works Cited	172

Introduction

Poetry is passion: it is the history or science of feelings.¹

—Wordsworth

A man lies in the grass staring through the latticework of a tree's branches. He finds pleasure in the tree's outlines because they conform to what he already imagines: "spots / Determined and unmoved."² Counter to the dreaming man, a young poet swats at a group of insects clouding his vision. Both men are fixed in their ways of seeing, but only the poet appears dissatisfied. Abject things do not fit the images of his mind. Despite dissatisfaction, next he seeks out a ruined cottage, rank and overgrown with weeds. Not entirely insensitive, the poet is searching for things outside the limits of what he thinks he knows, so that he might see things he cannot see.

William Wordsworth establishes in the opening of the early *Ruined Cottage* manuscripts (1798-99), which eventually became the first book of *The Excursion* (1814), the culminating problem of his age: how can thoughts and feelings account for things independent of the mind? The problem quickly leads to a series of additional questions: Where do thoughts come from in the first place, and the affections associated with those thoughts. Do ideas correspond with things "outside" of the mind? Or is every person, place, and thing really a product of the imagination, and thus every feeling a by-product of a fantasy? Lastly, if thoughts always already belong to the mind, then how can thoughts and feelings change over time? These questions were important because knowledge regarding reality establishes the foundation upon which human moral feelings

¹ "Notes," *Lyrical Ballads*, ed. James Butler and Karen Green (Ithaca: Cornell University Press, 1992), 350-2, at 351.

² *The Ruined Cottage and The Pedlar (RC&P)*, ed. James Butler (Ithaca: Cornell University Press, 1979), B 6-7. Further references to the poem will be cited according to manuscript and line number.

were based. To say that “reality” is only a figment of one’s imagination quickly leads to moral axioms that disregard the worth of other people, animals, or things. So before one can even begin to say how others should be treated, it was imperative to establish that there are in fact others (be they people, animals, or things).

The persistence of such epistemological issues continues into the present. For instance, Quentin Meillassoux recently sparked an international response to what he calls “correlationism.”³ It refers to any philosophical approach that assumes an object cannot be known without a subject, and conversely, that a subject cannot be known without an object. Meillassoux and his ilk’s critique of the correlationist circle follows from a preoccupation with the end of human life, no doubt brought on in part by threats of economic and ecological collapse. Thus, for Meillassoux, the question of “how we know what we know” must be accounted for through a mathematical approach, without recourse to human centered models of the universe that rely on aesthetics, faith, or feelings.

To a large extent, the nonhuman premise in the current philosophical debate is a response to the same debate as it unfolded prior to the Romantic period, from the late seventeenth to the early to mid-eighteenth century. As Stephen Gaukroger explains, in the mechanical approach to nature, emotional responses to external stimuli would have had value according to their place within the “natural order.”⁴ During this time, human

³ *After Finitude: An Essay on the Necessity of Contingency*, trans. by Ray Brassier (London: Continuum, 2008), 5ff. In some respect, Meillassoux’s mathematical approach to a universe without humans produces a happy philosophy in which anything can happen: “everything and every world *is* without reason, and is thereby *capable of actually becoming otherwise without reason*” (53). Thus the present dialogue might betoken the end of a human-centered narrative, but it may also usher forth something else entirely. For a collection of essays, in large part, in response to Meillassoux’s claims, see Levi Bryant, Nick Srnicek, and Graham Harman, ed., *The Speculative Turn: Continental Materialism and Realism*, (Melbourne: re.press, 2011).

perceptions and feelings with respect to external stimuli were subordinated to non-human qualities belonging to a thing, regardless of any human relation, such as its “*Solidity, Extension, Figure, [or] Mobility,*” what John Locke referred to as primary qualities.⁵ But following the 1740s, thoughts and feelings with respect to the world began to have value “in relation to an inner mental and emotional life: what we might term a personal psychology.”⁶ Indeed, during the age of sensibility, the external world was subordinated to the human mind, which became the focal point of philosophy.

Yet, with the transition to the Romantic period, the turn towards an inner emotional life did not necessarily bring about an ultimate end to mathematical accounts of human thoughts and feelings and their relationship to things. Feelings, of course, have been the subject of literary studies in Romanticism in the past.⁷ More recently, inquiries have expanded to demonstrate the important role that the natural sciences played in the

⁴ *The Collapse of Mechanism and the Rise of Sensibility: Science and the Shaping of Modernity, 1680-1760* (Oxford: Oxford University Press, 2010), 387-420, at 388.

⁵ *An Essay Concerning Human Understanding*, ed. Peter H. Nidditch (Oxford: Oxford University Press, 1979), 2.8.134-35.

⁶ Gaukroger, *The Collapse of Mechanism*, 391.

⁷ See for instance, Adela Pinch, *Strange Fits of Passion: Epistemologies of Emotion, Hume to Austen* (Stanford: Stanford University Press, 1996). Joel Faflak and Richard Sha ask why, since Pinch’s study, “or Jerome McGann’s *The Poetics of Sensibility*, both from 1996, this volume is the first collection of essays on Romantic emotion?” in the “Introduction” to *Romanticism and the Emotions* (Cambridge: Cambridge University Press, 2014), 1-18, at 3. Their answer, following Patricia Clough, is that the constructivism of poststructuralism and deconstruction left little room for studies of bodily information (4). I think the editors might exaggerate the cleavage between works on emotions. Indeed, the resurgence of work on sense, affect, and emotions coincides more generally with the translation of Gilles Deleuze into English which inaugurated important works returning “theory” to the body, for instance, Elizabeth Grosz’s *Volatile Bodies: Toward a Corporeal Feminism* (Bloomington: Indiana UP, 1994), and has continued to produce a wide variety of works. And most recently, in the field of Romanticism, several studies address feelings as their primary topic, for example, James Chandler’s *An Archeology of Sympathy: The Sentimental Mode in Literature and Cinema* (Chicago: University of Chicago Press, 2013) and Nancy Yousef, *Romantic Intimacy* (Stanford University Press, 2013).

Romantic understanding of sensations and feelings.⁸ But only in the last several years has a concerted effort been made to explore the importance of mathematics in the Romantic arts and sciences.⁹ Still, there has yet to be an extensive study in recent decades on the way that mathematics in particular informed the Romantic understanding of psychical and, especially, affective phenomena. Thus the present study outlines the ways in which mathematics linked cognitive and affective domains, and also provided a point of “access” to a mind-independent reality, but, as in the case of William Wordsworth, only through its partnership with mathematics’ cousin, poetry.

Sure enough, a strong link emerges between mathematics and moral feelings in later, extended versions of Wordsworth’s *The Ruined Cottage*.¹⁰ Eventually the young poet meets a Pedlar who narrates his upbringing from childhood to the present, forming an allegorical image which represents the development of mathematics’ role in moral philosophy from the early eighteenth century to the Romantic period. At a young age, the Pedlar loses his father and spends much of his time exploring the natural surroundings:

⁸ See, most recently, the essays included within *Romanticism and Emotions*, edited by Joel Faflak and Richard C. Shaw. See also Kevis Goodman, in “‘Uncertain Disease’: Nostalgia, Pathologies of Motion, Practices of Reading,” *Studies in Romanticism* 49.2 (2010): 197-227; Noel Jackson, *Science and Sensation in Romantic Poetry* (Cambridge: Cambridge University Press, 2008); and Tim Fulford, Debbie Lee, and Peter Kitson, *Literature, Science, and Exploration in the Romantic Era: Bodies of Knowledge* (Cambridge: Cambridge University Press, 2000).

⁹ See for instance, Matthew Wickman, *The Geometric Imagination in the Long Scottish Enlightenment* (Philadelphia: University of Pennsylvania Press, 2016); Rachel Feder, “The Poetic Limit: Mathematics, Aesthetics, and the Crisis of Infinity” *ELH* 81 no. 1 (2014): 167-195; and the essays included within “Romantic Numbers,” ed. Maureen McLane, *Romantic Praxis* (2013). This unexhausted list should be enough to call into question Eric Lindstrom’s claim, in *Romantic Fiat: Demystification and the Enchantment of Lyric Poetry* (New York: Palgrave, 2011), at 11, that mathematics, namely geometry, had little to no influence on Romantic philosophy with respect to the human-world relation, a claim to which I respond in chapter three.

¹⁰ Butler locates the extension of the Pedlar’s biography (esp. MS. E, ll. 24-374) at the “second stage” of composition from January to March 1798, in “Preface,” *RC&P*, x-xi.

He had early learn'd
 To reverence the Volume which displays
 the mystery, the life which cannot die:
 But in the mountains did he *feel* his faith:
 There did he see the writing. All things there
 Breath'd immortality, revolving life,
 And greatness still revolving: infinite.
 There littleness was not; the least of things
 Seem'd infinite and there his spirit shap'd
 Her prospects, nor did he *believe*, he saw.
 (E 213-22)

The “book of nature” that the young Pedlar reads finds its first elucidation in Galileo where it is discussed in explicitly mathematical terms. Following a host of eighteenth century philosophers and poets, Wordsworth has in mind a less technical version, but the figure remains in tact.¹¹ Indeed, the mountain is a kind of “writing,” but requires neither the training nor the cerebral approach that, for instance, a work of speculative philosophy requires. Instead the body is charged with the “animal spirits”: the external stimuli elicit a response from within. Despite the lack of anyone “doing” mathematics in this scene, reading signs in nature is nevertheless an early eighteenth century image of reading that is, at bottom, “mathematical”—but in what way?¹²

The connections between the book of nature, moral feelings, and mathematics found in Wordsworth’s poetry actually have their roots in the early eighteenth century emphasis on the geometrical concept of “fitness.” George Berkeley explains in *An Essay*

¹¹ Mark Akenside’s *The Pleasures of Imagination* (1745), Anna Laetitia Barbauld’s “Address to the Deity” (1773), Coleridge’s *The Destiny of Nations: A Vision* (1817), and the latter’s contributions to Robert Southey’s *Joan of Arc* (1796).

¹² The distinction between doing mathematics and something that is mathematical was first brought to my attention after hearing Arkady Plotnitsky’s presentation, “Mathematics and Experimentation in Art, Philosophy, and Mathematics and Science: Riemann, Kandinsky, Heisenberg, and Deleuze and Guattari,” (conference paper, University of Notre Dame, Notre Dame, IN, October 4, 2013).

Towards a New Theory of Vision (1709) and *Alciphron, or the Minute Philosopher* (1732) that the signs of nature reflect the thoughts of God.¹³ The signs lead to a healthy and moral life, guiding people towards pleasure and away from suffering.¹⁴ But fitness is the key that unlocks this sign system. It follows from an archaic way of measuring shapes or figures in geometry. In ancient Greece, superposition was a common form of measurement, while many regarded using a ruler and compass as vulgar. The hierarchy remained intact, largely until Descartes, who championed the use of technical instruments, and Rousseau, who criticized both methods. Nevertheless, the idea of fitness endured in geometry as well as in moral philosophy. From the Cambridge Platonists to Samuel Clarke and George Berkeley, it was thought that nature's moral input accorded with a geometrically proportionate feeling.¹⁵ Thus the young Pedlar in Wordsworth's tale meets external stimuli impressed on the mind with a corresponding feeling.¹⁶

Eventually, the idea of fitness fell out of favor, no doubt in part because of the criticism with which authors like Henry Fielding treated it. Fielding was a well-known devotee of Clarke, among other pseudo-supernatural philosophers of the early eighteenth

¹³ Thus Berkeley rejects the dominant mechanical philosophy of his day, which explains change in terms of cause and effect. Rather Berkeley sees the universe as organized "*linguistically*." See John Russell Roberts, *A Metaphysics for the Mob: The Philosophy of George Berkeley* (Oxford: Oxford University Press, 2007), xx, 65-7. On the signs' arbitrary appearance but necessary connection to God see *The Works of George Berkeley*, 4.14.159-60.

¹⁴ Berkeley, *An Essay Towards a New Theory of Vision*, 1.231.

¹⁵ On Clarke, see Gaukroger, *The Collapse of Mechanism*, 40-54, at 49.

¹⁶ While Ellen Douglass Leyburn, in "Berkeleyan Elements in Wordsworth's Thought," *The Journal of English and German Philology* 47.1 (1948): 14-28, demonstrates the presence of Berkeleyan themes throughout Wordsworth's poetry from 1797-1814, only the later *Alciphron: or the Minute Philosopher* was part of the Mount Rydal library. If Wordsworth never read the *New Theory of Vision*, he may have been made familiar with this idea through Coleridge. Berkeley's *New Theory of Vision* is a likely source, "whose work Coleridge was reading in March 1796," or possibly Andrew Baxter's summary of Berkeley from the *Enquiry*. See Kathleen Coburn, ed. *The Notebooks of Samuel Taylor Coleridge*, 3 vols. (New York: Pantheon, 1957), n. 248, vol. 1 Notes.

century (Tillotson and Barrow). But Square, Fielding's parody of Clarke in *The History of Tom Jones, a Foundling* (1749), is fond of spouting off maxims regarding the eternal fitness of things that fail to cohere with his actual desires. The very name of Fielding's character, as K.K. Ruthven suggests, "evoked not only the Euclidean tropes of recent ethical controversies but also the traditional iconography of Virtue, for in the moralized geometries of the Renaissance, squares and cubes [were] emblematic of virtue."¹⁷ But the theory of fitness' impractical dimension is made explicit when Jones catches Square in the gamekeeper's daughter, Molly Seagrim's bedroom, which just so happens to be triangularly shaped (book 5.5). Despite the appearance of certain significations, wisdom does not always match with wisdom.

In place of fitness, natural philosophers like David Hartley championed a geometrical image of thoughts and feelings, referred to as "associationism."¹⁸ Hartley's eighteenth century predecessors and contemporaries had already stressed the geometrical configuration of psychical and affective phenomena, suggesting that new ideas follow from new arrangements (William Duff); happy emotions follow from harmonious musical arrangements of the passions (Adam Smith); fancy's pursuits of trains of thought follow from a sublime or beautiful artwork's influence on the imagination (Archibald Alison); and perhaps closest to the Wordsworth, the imagination imitates its objects only to form "new and original assemblages of ideas" (John Ogilvie).¹⁹ But Hartley provided a

¹⁷ See K.K. Ruthven, "Fielding, Square, and the Fitness of Things," *Eighteenth-Century Studies* 5, no. 2 (1971-72): 243-255, at 248.

¹⁸ For a helpful overview of associationism and its connection to literary criticism, see Martin Kallich, "The Association of Ideas and Critical Theory: Hobbes, Locke, and Addison," *ELH* 12, no. 4 (1945): 290-315.

coherent system explaining how thoughts and feelings are plotted on the graph of the mind in the first place. Hartley sees the body as a porous thing amidst the æther, an “elastic fluid” external to the body as well as “diffused through the pores of gross bodies.”²⁰ The æther is the medium through which sensory information passes in the form of “vibrations,” which reach the body’s storehouse of information, or what Hartley refers to as the “medullary substance.” Because of its uniformity and continuity running throughout the brain, nerves, and spinal marrow, with any slight change “*in this [medullary] Substance, corresponding Changes are made in our Ideas*” (11, 6). Thus for Hartley, the affections, which are merely varying degrees of “pleasures and pains,” encourage people to “pursue happiness” while avoiding “misery, and all its apparent causes,” which are associated with memories, the “faculty by which traces of sensations and ideas recur, or are recalled, in the same order and proportion, accurately or nearly, as they were once actually presented” (2). In other words, trains of thought adhere to an underlying geometrical configuration that recurs over time. Therefore memories and their accompanying passions could be explained and reduced to mathematical patterns, providing philosophy of mind with a consistent and certain backbone.

The problem with the associationist theory of mind is its adherence to a sole principle or law, according to Samuel Taylor Coleridge—Wordsworth’s close friend and

¹⁹ See Walter J. Ong, “Psyche and the Geometers: Aspects of Associationist Critical Theory,” *Modern Philology* 49, no. 1 (1951): 26-27, 18.

²⁰ *Observations on Man, His Frame, His Duty, and His Expectations* (1749; Gainesville: Scholars’ Facsimiles and Reprints, 1966), 9.

collaborator.²¹ After a somewhat hasty disavowal of Thomas Hobbes' materialism,²² Coleridge demonstrates that the persuasiveness of Hartley's system rests on what was a mere condition for the mind's thoughts in Aristotle: contemporaneity.²³ Like a single wave, time determines all associations, an effect following from the cause, and the whole from a part. Accordingly, Hartley's geometrically plotted theory of mind actually leaves no room for change; the earliest instances of a life determine like Laplace's universe all subsequent instances without the possibility of a discontinuous break. In which case, the "will, the reason, the judgment, and the understanding" are reduced to effects of an imposing nature and a "senseless and passive memory" (110-111). Thus Hartley's philosophy anticipates eliminativist approaches in which "the self," "the mind," and "the will" are rendered nugatory.²⁴

Rather than categorically reject all laws or governing principles with respect to the self, Coleridge wants to couch these principles in the mind itself. Certainly, his image

²¹ See chapters 5-7 in *Biographia Literaria, or Biographical Sketches of My Literary Life and Opinions*, ed. James Engell and W. Jackson Bate, in *The Collected Works of Samuel Taylor Coleridge* 16 vols. (Princeton: Princeton University Press, 1983), 7.1.89-128.

²² According to Louis I. Bredvold, in *The Intellectual Milieu of John Dryden* (1934; Ann Arbor: University of Michigan Press, 1962), 47-72, the main argument among scientists against Hobbes' brand of materialist philosophy (and their preference for Cartesian rationalism) was the commitment to hasty first principles (as exemplified in Euclidean geometry); and thus, many of the Royal Society adopted "philosophical skepticism" towards the "very science they were promoting" (60-61).

²³ *Biographia Literaria*, 110.

²⁴ For a critique of the players and stakes in eliminativist approaches to the "self" see Ray Brassier, *Nihil Unbound: Extinction and Enlightenment* (London: Palgrave, 2007), 3-31, furnished in large part by the work of Paul Churchland: "The upshot of Churchland's work, in a word, is simply that we are not as we experience ourselves to be" (27). However, Brassier departs from the "pragmatic" dimension of Churchland's brand of eliminative materialism in favor of an objective but speculative take on consciousness: "This is not to say that there is no more to consciousness than what can be linguistically mediated and articulated, but on the contrary, to insist that consciousness harbours an underlying but sub-linguistic reality which is simply not accessible to first-person phenomenological description or linguistic articulation [...] Only the objective, third-person perspective is equipped with conceptual resources sensitive enough to map consciousness' opaque, sub-linguistic reality" (29).

of the mind is more dynamic than his predecessors' depiction. Coleridge imagines as a river those phenomena to which the mind must yield: sense content and the memory. Counter to the waters is a small spider that "*wins* its way up against the stream, by alternate pulses of active and passive motion" (124). In its moments of passivity, it gathers strength and in a "*momentary fulcrum*" it once again propels itself forward. The spider for Coleridge is the imagination, and the fulcrum is the simultaneous lapse in power and a motion of the mind's attention. His illustration points to an alternative principle according to which the mind functions, of equal or greater importance than contemporaneity. While Coleridge at times disparages the materialist approach too much (perhaps not an unfair position given the science of the times), and gives too much credence to unfounded abstractions like "the will," his preference is for a mind able to manipulate thought by way of logic (128). Ultimately it is a case for human agency and change.

How do such principles of the mind work, exactly? Are they inherent to the mind, or learned? And if so, how does one learn them? Are they still at bottom mathematical, adhering in some way to logic? If so, can such an alternative principle and others like it be taught by reading about them in a work of philosophy, or must they somehow be more actively engaged, for instance, through a work of art?

Indeed, the possibility of additional principles governing the mind was being explored through a different medium entirely, rather in literature than natural philosophy. If an education in the arts teaches right and wrong in the social world, and if this rightness and wrongness is determined by principles common to all men, then Lord Kames' mission in 1762 was to uncover the "genuine principles of the fine arts," and thus

“the arts, like morals, become a rational science.”²⁵ Perhaps begging the question a bit, Kames’ admission that artworks can teach moral laws is still important. Because a logical correspondence exists between the principles of artworks and the principles of human morals, to alter the former (the arts) might lead to a change in the latter (moral feelings).

Thus, by the 1790s, Wordsworth was primed to develop a method for “accessing” a mind-independent reality without subordinating the mind to it: and he does so by synthesizing the lessons from “fitness” and “associationism” through poetry, or what he refers to as “the history or science of feelings.” In this science, signs are measured in the “balance of feeling,” meaning that an observer responds affectively to the signs observed, namely, the words of the poet.²⁶ Wordsworth maintains the function of fitness, but replaces the book of nature with the book of poetry: the “visual language” becomes an imitation. Indeed, as Stuart Allen argues, Wordsworth proposes that “poetry *is* feeling, that the arrangement of language as verse itself produces pleasure, and that metered pleasure makes it possible to field a whole slew of emotions otherwise difficult to bear.”²⁷ Thus the collection was intended as an “experiment [...] to ascertain, how far, by fitting to metrical arrangement a selection of the real language of men in a state of vivid sensation, that sort of pleasure and that quantity of pleasure may be imparted.”²⁸

²⁵ *The Elements of Criticism*, 2 vols. (1762; Edinburgh, 1785), vol. 1, 6-7. *Eighteenth Century Collections Online (ECCO)*. Gale Group.

²⁶ “Notes,” *Lyrical Ballads*, 351.

²⁷ *Wordsworth and the Passions of Critical Poetics* (New York: Palgrave, 2010), xi.

²⁸ “Preface to *Lyrical Ballads* (1800),” in *The Prose Works of William Wordsworth*, ed. W.J.B. Owen and Jane Worthington Smyser, 3 vols. (Oxford: Clarendon Press, 1974), 1.118.

Wordsworth attempts to match an excited form of speech to a mathematical pattern, which can then be objectively communicated to others in different times and places.

But Wordsworth cannot simply provide a new set of principles for the mind, even through the guise of poetry. As he admits in the Advertisement to the 1798 edition of *Lyrical Ballads*, readers already have in mind a fixed association with the word “poetry.”²⁹ Audiences have developed “pre-established codes of decision,” and as a consequence they will reject whatever does not match what is already recognized as poetry and, by extension, the feelings associated with it. A poem unlike what one already knows cannot connect with a reader, and thus cannot elicit new or unfamiliar thoughts and feelings. Indeed, poetry is the solution for Wordsworth to the mind/nature gap, but it is also in an analogous relationship to nature and therefore, to a certain extent, equally inaccessible.

Accordingly Wordsworth avoids matching patterns in his poetry with what the reader already knows. First he warns readers in the Advertisement that they will more likely encounter in his poems feelings of “strangeness and awkwardness.”³⁰ Simply imparting feelings of strangeness and awkwardness may only reproduce Wordsworth’s initial predicament: An unfamiliar poem will simply be disregarded as a poem. Hence the changes made in the 1800 “Preface.” And here is the crux of Wordsworth’s achievement: he now claims that the two volumes will not merely impart a strange feeling; rather the poems will actually unbind feelings from associated ideas which might otherwise allow the reader to deflect or disregard such strangeness: “The end of Poetry is to produce

²⁹ “Advertisement to Lyrical Ballads,” in *The Prose Works*, 1.116-7.

³⁰ *Ibid.*, 1.116.

excitement in coexistence with an overbalance of pleasure,” that is an unfitness of pleasure with respect to excitement.³¹ Excitement is an important mood because it is “an unusual and irregular state of the mind; ideas and feelings do not in that state succeed each other in accustomed order.” The “order” of thoughts and feelings is code for “trains of thought,” and Wordsworth suggests that poetry can actually upset this order connecting idea *A* and feeling *a* to idea *B* and feeling *b*, and so on.

Instead, Wordsworth’s poems communicate a “gap” or break that disrupts the consistency of established sequences of thought, an increasingly accepted view of the function of Wordsworth’s poetry.³² It is the negative to Adela Pinch’s theory of affective contagion. Pinch looks at the circulation of feelings through literature, focusing on quotations, and in Wordsworth on meter, as a means of gathering together others’ feelings through an intertextual web.³³ No doubt, Wordsworth employs allusions as an appeal to pathos. But through a series of educational, aesthetic, and logical discontinuities, Wordsworth also represents and effectuates a gap in human consciousness. The danger is that once a link breaks in the web of consciousness, depending on its importance the structural integrity of the ego can suffer overall. Such a

³¹“Preface to Lyrical Ballads (1800),” in *The Prose Works*, 1.146.

³² Brian McGrath, in *The Poetics of Unremembered Acts: Reading, Lyric, Pedagogy* (Evanston: Northwestern University Press, 2013), argues that Romantic lyrics employ “figures of address” that “stage the passage out of cognition,” and thus “repeat the scene of instruction in reading, a scene that must go unremembered—for Locke—for reading to commence” (12-13); and Stuart Allen, in *Wordsworth and the Passions of Critical Poetics*, investigates the way Wordsworth uses the destabilizing lessons from aesthetics for the sake of political ends (1, 6).

³³ In *Strange Fits of Passion*, Pinch looks at a number of Romantic-era writers, but in the case of Wordsworth, intertextual words and meters become the “messengers of pain” (86). By “intertextual,” I mean a “permutation of texts”: “in the space of a given text, several utterances, taken from other texts, intersect and neutralize one another,” as Julia Kristeva defines it in “The Bounded Text,” in *Desire in Language: A Semiotic Approach to Literature and Art*, ed. Leon S. Roudiez (1966-67; New York: Columbia University Press, 1980), 36.

breakdown appears in the Pedlar's story of the *Ruined Cottage*. Robert, one of the original cottage tenants, follows a strict routine until falling ill during wartime. Once his savings—the true “patchwork” according to which the consistency of his world is maintained—disappears, he falls prey to bouts of disorientation, blending in his mind the seasons and wandering the land without aim or purpose. Thus the Pedlar's story stands in as an admission for Wordsworth: to disrupt the order of thoughts and feelings is to risk encouraging madness.

To avoid the pitfalls that naturally accompany an inconsistent logic, Wordsworth's science of feelings requires an additional “act” of recovery, a “reflexive turn” that concludes with the construction of a new image and feeling.³⁴ It is an operation that gathers the fragments of former thoughts together into a new sequential order, as exemplified at the end of *The Ruined Cottage*. The story concludes with Robert's wife left to suffer a painful existence until Margaret dies prematurely. Upon hearing the Pedlar's conclusion, the poet stands up and reviews the dilapidated scene before him with new eyes. Recognizing the cottage before as nothing other than a malodorous, overgrown mess, the story of Margaret dismantles his spontaneous relationship to the world that had blocked, not second sight, nor an ordinary way of seeing, but a deconstructed and reconstructed third form of approaching mind-independent objects. The structure of this turn at first resembles the sympathetic turn found of Adam Smith, in that, reflexivity is a

³⁴ Slavoj Žižek, in *The Sublime Object of Ideology* (1989; London: Verso, 2008), explains the varieties of reflexivity: “the very feature which seems to exclude the subject from the Other [...] is already a ‘reflexive determination’ of the Other; precisely as excluded from the Other, we are already part of its game” (70-1). The attempt to know the other, in this case through a series of questions and answers, can go on *ad infinitum* because “the subject has to grasp how, from the very start of the game [dialogue], the door concealing the secret was meant only for him [...] in short, how his external position *vis-à-vis* the Other [...] is internal to the Other itself.”

“re-turn.”³⁵ The self imagines an other, only to project this other’s pain back upon the self. But Wordsworth’s reflexive turn is deceptively asymmetrical. Although the process is a product of the imagination, it proceeds logically from the gap imparted to the auditor by way of the poem.

Of course, the present study is not the first to draw attention to a recuperating, reflexive act in Romanticism. It has remained a central concern for Wordsworth and Romanticism scholars alike since the work of Geoffrey Hartman and Paul de Man. For de Man an error shakes a person out of a spontaneous engagement with the world, but upon seeing one’s self from this objectified or ironic posture, consciousness is able to return to a coherent state de Man calls “wisdom.”³⁶ In these terms, reflexivity seems common. Indeed, in philosophy, its structure feels ubiquitous: Discovery and catharsis in Aristotle; Adam Smith’s anatomy of surprise; Kant’s dynamic sublime; Hegel’s “positing of presuppositions”; Heidegger’s broken hammer; and McLuhan’s transition from hot to cool media. All of which fall under what François Laruelle calls “decision,” the name he gives to this invariant at the heart of all philosophy (and hence the target of his critique in *Philosophies of Difference*).³⁷ Yet as one critic rightly points out, Laruelle understands

³⁵ Sympathy characterizes the feeling one has when encountering, for instance, another person suffering in pain, and the observer shares in this suffering by imagining the pain experienced by the other: the observer imagines the other as the self. No doubt it is a latter-day version of “fitness” couched in the mind’s domain; hence, the self and other must fit, “in some measure.” Moreover, Smith claims that the observer can imagine the self as other, “who in turn is being represented as the self,” comments Ong, producing an infinite regress, like two mirrors facing each other, and thus anticipating the poststructuralist representation of the human subject as a *mise en abyme*. See Adam Smith, “Theory of Moral Sentiments,” *The Essential Adam Smith*, ed. Robert L. Heilbroner (New York: Norton, 1986), 65.

³⁶ “The Rhetoric of Temporality,” *Interpretation: Theory and Practice*. Ed. Charles S. Singleton. (Baltimore: The Johns Hopkins University Press, 1969), 173-209 at 206.

³⁷ “Theory of Philosophical Decision,” *Philosophies of Difference: A Critical Introduction to Non-Philosophy*, trans. Rocco Gangle (1986; London: Bloomsbury, 2010), 196-223.

this structure as “always-already” in place.³⁸ If an ahistorical approach to decision or reflexivity is to be challenged, a genealogy is required.

Still, the fact that Wordsworth saw the need to aid the imagination in the act of reflection and construction, as did Coleridge in *Aids to Reflection* (1825), indicates in Rousseauvian terms a weakening of the power of reflexivity—and thus its change over time was not lost on the poets.³⁹ The century best known for the rise of sympathy is paradoxically marked by its diminishment. No doubt, urban dwellers in the fast-paced, modern world required ever-greater spectacles, says Wordsworth, attaching themselves to “frantic novels, sickly and stupid German Tragedies, and deluges of idle and extravagant stories in verse.”⁴⁰ For Wordsworth and his circle, they believed that the more people became accustomed to violent stimuli, the more they would become immune to it, thereby demanding evermore spectacles in increasingly violent forms.⁴¹

Thus, I argue, Wordsworth alters the history of reflexivity by grounding a psychical and affective mechanism in the technical medium of poetry because, in the act of reading, poetry can “reset” the logical order of thoughts and feelings by way of a

³⁸ Brassier is responsible for introducing Laruelle to the Anglophone philosophical world. He claims that Laruelle still manages to conflate his “non-philosophy” with the very structure he sees inhibiting philosophy. He sees the “need to identify the essence of philosophy” as “arguably inherited” from the Heideggerian present-at-hand’s veiling of the ready-at-hand (i.e. the broken hammer): “the representational erasure of being’s withdrawal from presence – Laruelle sees something like the essential structure of philosophical thinking delineated in this very distinction between *Vorhandenheit* and *Zuhandenheit*, or representation and its un-representable condition” (*Nihil Unbound* 121).

³⁹ Leon Chai, in “Towards a Definition of Reflection,” *Romantic Theory: Forms of Reflexivity in the Revolutionary Era* (Baltimore: The Johns Hopkins University Press, 2006), 153-166, provides an elucidation of reflexivity in Coleridge’s *Aids to Reflection*.

⁴⁰ “Preface to Lyrical Ballads (1800),” in *The Prose Works*, 1.126.

⁴¹ On the influence of Shaftesbury and Akenside on Wordsworth’s thoughts regarding an ever increasing desire for greater and more violent forms of stimulation, and thus the need for the “regulation of the feelings,” see Stuart Allen, *Wordsworth and the Passions of Critical Poetics*, 13-17, and 29-30.

complex logical system. While numerous critics have arrived at similar conclusions regarding Wordsworth's imparted "gap," the present inquiry differs in its focus on the way Wordsworth saw poetry, not just as the antidote to an artistic medium that was fueling a desire for greater and greater stimulation, but also for a mathematical medium that was failing in equal measure to aid the mind in its struggle to account for its connection to a mind-independent reality—as well as itself. Geometry's import into materialist and rationalist philosophies of mind could not yet provide these scientific approaches with the resources necessary to model how people connected, how new thoughts could be constructed, and how feelings changed over time without reducing the human to a mere automaton. Euclid was not suddenly bad geometry; it was still the most complete and consistent science to date. However, its completeness and consistency also made it too inflexible to accommodate the complexities of the mind/nature gap, human relationships, and the changing face of the emotions. Wordsworth's solution was not the outright rejection of geometry, but to some extent, the revival of its reflexive powers through its adaptation to poetry. Therefore poetry could supply a human science, a science of feelings, built on rational principles but grounded in a medium that was (almost) as flexible as human growth and development, thereby demanding that the pupil submit to its rules, yet rules that encouraged change.⁴²

To account for his response to geometry, the present inquiry begins with Wordsworth's earliest familiarity with Euclid. It might seem like a strange body of knowledge for a young poet to take seriously, especially when the practical geometry of

⁴² Thus Wordsworth belongs to a lineage from Kant to Sellars, which Ray Brassier charts (with primary focus on Sellars and his successors), in "The View from Nowhere," *Identities: Journal for Politics, Gender and Culture* 8, no. 2 (2011): 7-23, in which "self-knowledge is mediated by knowledge of objects" (22).

grammar school was meant to prepare the student for an occupation in surveying, navigation, and perhaps most surprising, the British war machine (chapter one). Indeed, it is an outcome Wordsworth only narrowly avoids with the aid of literature. Then, privileged enough to attend Cambridge where the curriculum focused less on mensuration and more on the universal principles of Euclid's figures, Wordsworth explored the benefits and detriments of studying speculative geometry as it informed the social and natural world (chapter two). Once he arrived at a mature stage in his education, Wordsworth applied the principles of geometry in the classroom and the sublime in nature to the problems dogging the eighteenth century with respect to the mind's undergirding logic. No doubt, eighteenth century authors were in the process of abandoning Euclid's propositional form, thereby making official the split between Euclidean geometry and poetry. But the divorce also inaugurated a new way of thinking about what an axiomatic logic could be, on what ground it rested, and what it might do (chapter three). Ultimately, Wordsworth confronted Euclid's other children—not algebra, nor calculus, but the rapidly growing tripartite regime of economics, science, and technology. In response, Wordsworth approached the problem of "human progress" in a new and original way: from a future retrospective position. From this "vantage point," he espoused with even greater urgency the need for a creative, poetic, or reflexive form of geometry/mathematics, less for the future of the biological human species, and more so for an inhuman progeny (chapter four). The dissertation concludes with a figure of a future form of "inhuman reflexivity," a form that appears to be taking shape in the present, but with an additional "non-reflexive" dimension by way of digital software and algorithms (conclusion).

Today, the neglected role of mathematics in the history of the science of feelings merits renewed attention, especially as twenty-first century efforts to map the human brain progress each year. Indeed, human brains continue to exist and operate in “real time.” Like any object, from a rock, to the weather, or the market, the history of a human brain will likely exceed its mathematical representation. But the ability to map the brain using mathematical tools greatly demystifies the mind.⁴³ My hope is that the present inquiry—especially because it is a study of a “great Romantic figure”—mitigates dismissive attitudes regarding what a mathematized object allows humans to know, treat, and alter. And while some humanists are quick to defend affect and emotions as the last refuge of all that is human because they defy objectification, the fact that the emotions cease to exist if a part of the brain is damaged demonstrates their material and therefore mathematizable existence.⁴⁴ Such facts do not demand that we deny feelings their strange complexity and evolutionary achievement. Still—and here I think Wordsworth would agree—the aim should be to develop a body of knowledge, a medium, and a temperament that is as flexible as the subject matter. For this reason, the arts, sciences, and mathematics make excellent bedfellows.

⁴³ In this area I have benefitted from the following works: Thomas Metzinger, *The Ego Tunnel: The Science of the Mind and the Myth of the Self* (New York: Basic, 2009); Ray Brassier, *Nihil Unbound*, especially the first chapter, “The Apoptosis of Belief”; and Antonio Damasio, *Looking for Spinoza: Joy, Sorrow, and the Feeling Brain* (Orlando: Harvest, 2003).

⁴⁴ See Damasio, *Looking for Spinoza*, 5.

Section 1: Practice

Chapter I: Problem

“It is also reported that Ptolemy once asked Euclid if there was not a shorter road to geometry than through the *Elements*, and Euclid replied that there was no royal road to geometry.”

—Proclus

Wordsworth, like most English boys attending public school, received an education in Euclidean geometry at Hawkshead. For Wordsworth, the next step was Cambridge where *The Elements*' first six books appeared on his exams.⁴⁵ He advanced from the practical exercise of mensuration to the speculative geometry, a philosophical quest for universal principles. Wordsworth studied geometry not for the sake of navigating, surveying the land, or aiming canons, but for understanding ultimate truths.

But as Rousseau warned, practical geometry can actually block the mind from progressing to the speculative realm.⁴⁶ Perhaps it is an exaggeration to say that working out the propositions of Euclid's *Elements* prohibits the intellectual faculties from enjoying geometry's ultimate truths, and yet it is precisely for this reason that the early Romantics expressed antipathy towards mathematics. For as soon as mathematics becomes rote; once the pupil no longer is asked to think but only to obey; and ultimately, once the geometrical plotting of points becomes the spontaneous lens through which the

⁴⁵ On Wordsworth's Euclidean upbringing, see Charlotte Kipling, "A Note on Wordsworth's Mathematical Education," *The Charles Lamb Bulletin*, 59 (1987): 96-102; Ben Ross Schneider, *Wordsworth's Cambridge Education* (Cambridge: Cambridge University Press, 1957); and Mary, *William Wordsworth: The Early Years, 1770-1803* (Oxford: Clarendon Press, 1957), 97-8. For a list of Wordsworth's exam readings see Duncan Wu, *Wordsworth's Reading: 1770-1799* (Cambridge, Cambridge University Press, 1993), 166-68.

⁴⁶ Jean-Jacques Rousseau, *Emile; or On Education*, trans. Allan Bloom (New York: Basic Books, 1979), 188.

student encounters external stimuli, then mathematics education has tamed reason, the imagination, and the affections. Because eighteenth century philosophers of mind believed that the mind's thoughts and feelings adhered to a geometrical syntax, or "trains of thought," plotting geometrical points to construct a figure was thought to reinforce the harmonious linearity of associations. Thereby, if the study of geometry is the sole model and agent of the mind's architecture, it is fair to say that psychological reasoning and feeling for a particular class of people in the eighteenth century could be classified as Euclidean—and resistant to change.

If practical geometry was regarded as detrimental for the growth of the mind, why was it so emphasized in schools? As Geoffrey Howson explains in his history of mathematical education in Britain, it would "ultimately be the rise in commercial and military power that would demand greater education in math—but often only of a practical kind, aimed towards utility."⁴⁷ As the geometry and military textbooks confirm, practical geometry was privileged over more theoretical or speculative mathematics.⁴⁸

⁴⁷ *A History of Mathematics Education in England* (Cambridge: Cambridge University Press, 1982), 44.

⁴⁸ Thomas Malton, in the Preface to *The New Royal Road to Geometry and Familiar Introduction to the Mathematics*, part. 1 (London: Charles Dilly, 1793), i-ix. *Eighteenth Century Collections Online* (ECCO). Gale Group, claims that geometry plays a foundational role in "Navigation, Gunnery, [and] Fortification," and while he actually includes Euclid's theoretical propositions in this abridged edition, he is typical in his condescending attitude with respect to this separate section: "some of [the problems] are merely speculative; at least, their uses are not immediately apparent, to me, others may find them" (ix). And while I would find it unsurprising to see such a message in a military textbook, for instance, Charles Hutton's *A Course of Mathematics in Two Volumes, Composed and More Especially Designed, For the Use Of the Gentlemen Cadets in the Royal Military Academy at Woolwich* (London, 1799), what should impress us is the way that non-military geometry textbooks—popular ones for school children—stated their purpose in preparing pupils for the military and more explicitly for the purposes of war. For example, Robert Simson, in his Preface to *The Elements of Euclid viz. The First Six Books together with the Eleventh and Twelfth* (Edinburgh: Wingrove and Balfour, 1793), tells us that Euclid's *Elements* "are the foundations of a Science by which the Investigation and Discovery of useful Truth, as least in Mathematical learning, is promoted as far as the limited Powers of the mind allow; and which likewise is of the greatest Use in the Arts both of Peace and War, to many of which Geometry is absolutely necessary" (vii).

The desire on the part of the military to have soldiers educated in Euclid was motivated by a need for precise measurements. Moreover, Euclid was believed to discipline the mind.⁴⁹ In particular, an education in geometry sharpens the “attention.” And as Lily Gurton-Wachter has persuasively demonstrated, attention was undergoing an explicit form of militarization (consider the now familiar imperative, “Attention!”), which began in England during the 1790s under the threat of French invasion.⁵⁰

Of course, attention is not important merely for the sake of keeping an eye on the French. It carried with it important epistemological implications as well. According to Wordsworth’s close friend and collaborator, Samuel Taylor Coleridge, “ATTENTION” is the faculty most aligned with geometrical education because it concerns the “order and connection of Thoughts and Images.”⁵¹ Attention is the natural partner to Euclid’s axiomatic method because it is the faculty of step-by-step tracing (from memory *A* and feeling *a* to memory *B* and feeling *b*).⁵² Attention tends to grow stronger with the study of

⁴⁹ Thus I am adding to the connections between more cerebral forms of discipline in an educational setting and the more obvious militaristic forms of discipline as investigated by Michel Foucault in *Discipline and Punish: The Birth of the Prison*, trans. Alan Sheridan (1975; New York: Vintage, 1979). Looking more at “exercise” in particular, he claims that, “These methods [like marching], which made possible the meticulous control of the operation of the body, which assured the constant subjection of its forces and imposed upon them a relation of docility-utility, might be called ‘disciplines’” (137). And Henri Lefebvre, in *Rhythmanalysis: Space, Time, and Everyday Life*, trans. Stuart Elden and Gerald Moore (New York: Continuum, 2004), at 39, discriminates “education, learning and dressage or training [*le dressage*],” which he briefly qualifies: “Knowing how to live, knowing how to do something and just plain knowing do not coincide.” For Lefebvre, dressage is closer to “breaking-in,” a much later stage in the soldier’s education. Here, we are interested in a primer to this stricter stage, a phase that can also be seen as a fork, where soldier and poet might part ways.

⁵⁰ “‘Ever on Watch’: Wordsworth’s Attention,” *Studies in Romanticism* 52, no. 4 (2013): 511-535, see especially 521-22. Gurton-Wachter’s book on attention was published only within the final months of competing this dissertation, so regrettably I have been unable to include it here.

⁵¹ “Table-Talk: Essay II,” *The Collected Works of Samuel Taylor Coleridge*, ed. Barbara E Rooke, 16 vols. (Princeton: Princeton University Press, 1969), 4.1.14-17, at 16.

⁵² Isaac Watts, in *The Improvement of the Mind, or a Supplement to the Art of Logic* (1741; London, 1798), 128-131, *Eighteenth Century Collections Online* (ECCO), Gale Group, claims that

geometry because, according to Coleridge, geometry “require[s] attention only.” What is sacrificed is thought. The faculty of “THOUGHT” pertains to “the voluntary production in our own minds of [...] states of consciousness.” Thought is the mechanism according to which one is able to reflect on one’s own feelings with respect to other things, people, and even memories. The problem is that, despite attention’s ability to link points or steps together, attention alone cannot connect a specific feeling to a principle and an object because there is necessarily a gap between particulars and their ground or law. If pupils of the Romantic age are interested not only in well ordered thoughts and feelings but in the ability to alter these thoughts and feelings as well, attention will be required in conjunction with thought.

What remains to be shown is how this faculty of attention was developed among school children without necessarily blocking the path to speculative geometry; or how a student could attend to an education in mathematics and still circumnavigate the detrimental effects on thought. Thus it is the purpose of this chapter to demonstrate how Euclidean geometry is indeed attention’s chief enabler in childhood education. But this narrative is complicated through an illustration of how an education in geometry, coupled with a literary component, binds attention to thought and thereby makes possible a

mathematics is an excellent source for “fixing the attention” due to its “perpetual chain of connected reasonings,” and that while diagrams may be a helpful aid for making abstractions (philosophical, astronomical, and moral) more concrete, the student should avoid relying on such supplemental aids too much in case it kills the ability to grasp abstract ideas (which precedes the same point made by Rousseau [below]) (129). On the other hand, in his campaign to introduce into early childhood education “RATIONAL TOYS” (geometrical solids), Thomas Beddoes writes in a letter to Benjamin Donne, which becomes the prologue for the latter’s book on practical geometry: “It may be thought, that the long demonstrations in Euclid are of use in bestowing a facility in conceiving and recalling long chains of argument... I shall however observe that, as all ideas are derived from sense, all argument must consist of a statement of facts or perceptions. The true way therefore of making ideas durable, or rather easily excitable, is to make them distinct at first. It was on this account truly, that *‘the art of memory is the art of attention’*” (vi). See *An Essay on Mechanical Geometry* (Bristol 1796), v-viii. *Eighteenth Century Collections Online* (ECCO). Gale Group. Coleridge’s name is on the subscription list for Donne’s book.

reflective turn in the mind, which might allow for a different course of thoughts and feelings to unfold.

Some might object that practical geometry is not practiced at all times and in all places. So how does a practice reserved for one area of a child's education become the spontaneous lens according to which people encounter things and other people more generally? Others might ask, if the student reads poetry on a daily basis, why does not poetry become the "spontaneous lens"? According to Wordsworth's plan—it might. But geometry has an advantage over poetry: The branch of mathematics responsible for measuring the earth is made ubiquitous by way of everyday media, namely large-scale infrastructure like roads, buildings, and bridges, which impose diagrammatic relationships on human interactions until a Euclidean sense of space becomes the student's spontaneous relationship with other humans, things, and events.

And it can be argued that the increased conformity of England's infrastructure to Euclidean fixed positions coincided with its development as an imperial power. Through seemingly innocuous media Wordsworth recognizes practical geometry as the root source conditioning the movements and interactions of people according to plotted points, thereby reflecting a Euclidean arrangement of space back upon consciousness for the purpose of reinforcing militaristic attention. For example, in Romantic-era writing, milestones, mile-markers, and turnpikes appear on the roads standardizing the distance between towns.⁵³ These markers reflect back an image of England's landscape as a two-dimensional and linear map. Yet when Wordsworth places a soldier returning from war in

⁵³ Turnpikes are a frequent roadside image in eighteenth and nineteenth century poems and novels (I'll mention only some familiar authors), from Southey's "The Cross Roads" to Austen's *Sense and Sensibility* and George Eliot's *Middlemarch*. The turnpikes tend to represent a "pause" or "rest" in one's movements, serving as either a moment of reflection (Southey), an excuse to gawk at handsome men (Austen), or a threshold separating the "community" from the "outside" (Eliot).

proximity to a milestone, or when Robert Southey depicts a soldier on his way to war pausing at a Turnpike, it functions as a reminder of the plotted point's militaristic association, marking not only the distance between cities but also the distance between the "homeland" and imperial efforts abroad.⁵⁴ Psychically, the connections between places "collapse" distant locations, because the mapping of the earth (as one empire) objectifies and flattens the terrestrial globe for human consciousness, and in this case, really, "for England."⁵⁵ Thereby not only do the landmarks reduce space to a two dimensional image, but time is also arrested, for the turnpikes replacement of the old milestones replaced elide England's inheritance of ancient Rome's expansionist tendencies: England has always already been in power.

Today circumstances have changed, but they are not utterly different. The very roads on which we travel are a manifestation of a practical and extensive science with close ties to not only state power and the police, as Paul Virilio has pointed out, but on an

⁵⁴ While Mary Favret, in *War at a Distance* (Princeton: Princeton University Press, 2010), focuses more on Cowper's *The Task* and many writers around Wordsworth (with a short analysis of *The Ruined Cottage*), her overall point is germane: Britain was involved in wars nonstop during the latter half of the eighteenth and early part of the nineteenth century, and these wars were brought home by way of various cultural media, which could not help but condition affective responses to war (thus it is largely a study about the construction of feelings). On a different but related note, David Simpson, in *Wordsworth, Commodification, and Social Concern* (Cambridge: Cambridge University Press, 2007), esp. 97, draws on Marx's understanding (or Wordsworth's) that agricultural labor always supplements military labor, which renders "all encounters [with others] unpredictable and potentially implicated in global politics." His addition is important because at some point it must be the roads that connect the "simple" and "naïve" agricultural "background" with the distant and worldly theater of war.

⁵⁵ A similar claim appears in the representative essay on Wordsworth and Coleridge by Michael Wiley, in "'No Place on Earth / Can Ever Be a Solitude': *Lyrical Ballads*, Hartleianism, and a World of Places," *Global Romanticism*, ed. Evan Gottlieb (Lewisburg: Bucknell University Press, 2015), 81ff. Wiley focuses on the contrast between specific locations and the relationships between more than one geographical location. While I certainly agree with the demonstration of David Hartley's role in Wordsworth's decentering of England (85), the psychologized version of the global that Wiley presents never expands to include the military networks that were materially determining these relations between locations. If there is any lesson to take away from *Lyrical Ballads*, as the next chapter demonstrates, even if mind is not "merely" matter's subordinate, the material still played an important role in determining mind.

even larger scale, to imperial expansion and regulation.⁵⁶ As a condition for the traffic of commodities and people in the eighteenth and nineteenth centuries, the road is part of a vast network that connects the mesoscopic localities of Wordsworth's backyard to a macroscopic theater of war.

Indeed, there is no royal road to geometry, but in the eighteenth and nineteenth century all roads were in danger of conforming to the King's highway. The roadways in England, arguably the most efficient transportation system in all of Europe by the 1790s,⁵⁷ were largely improved for the sake of personal, local financial gain.⁵⁸ And yet, it cannot be denied that the flow of commercial goods within the state benefited from war efforts abroad—all this, while commanding one's attention, from a Romantic standpoint,

⁵⁶ For instance see Virilio's *Speed and Politics: An Essay on Dromology*, trans. Mark Polizzotti (New York: Semiotext(e), 1986), where he says "The State's political power, therefore, is only secondarily 'power organized by one class to oppress another.' More materially, *it is the polis, the police, in other words highway surveillance*, insofar as, since the dawn of the bourgeois revolution, the political discourse has been no more than a series of more or less conscious repetitions of the old communal poliorcetics, confusing social order with the control of traffic (of people, of goods), and revolution, revolt, with traffic jams, illegal parking, multiple crashes, collisions" (14). While in England during Wordsworth's time the policing of roads came to bear on the lives of vagrants and veterans especially (the government had to officially discriminate between the two, in order to offer some meager protection to the latter, i.e. the freedom to beg), the practice of policing the road turned into a form of racial discrimination in the United States during the nineteenth century and continues today. On the latter see Michelle Alexander, *The New Jim Crow: Incarceration in an Age of Colorblindness* (New York: The New Press, 2010), esp. 64-72.

⁵⁷ According to Dan Bogart, in "Neighbors, Networks, and the Development of Transport Systems: Explaining the Diffusion of Turnpike Trusts in Eighteenth-century England," *Journal of Urban Economics* 61 (2007): 238-262, "turnpike mania" marks a dramatic increase in trusts from 1751-72, and the last major city to "adopt a turnpike was South Shields in 1795" (244). But the superiority of the English road system is not a strictly present-day opinion. Sir H. Parnell remarks in *The Saturday Magazine's* August 1839 article, "Glances at English Land-Travelling," that it is "owing to the turnpike system of road management that England is so superior to other countries with respect to her public roads" (82). Closer to the decade at hand, John Holt makes the profound observation that the turnpike road system provides "almost an universal plan of communication through the kingdom" (quoted in William Albert, *The Turnpike Road System in England, 1663-1840* (Cambridge: Cambridge University Press, 1972, 30).

⁵⁸ Dan Bogart, in "Turnpike Trusts and Property Income: New Evidence on the Effects of Transport Improvements and Legislation in Eighteenth-century England," *Economic History Review* 62, no. 1 (2009): 128-152, demonstrates that landowners saw the benefit in the form of "increased local property income per acre by at least 20 per cent" on account of the turnpike road system (129). I would like to thank Professor Bogart for an instructive exchange of emails at the early stages of researching this dissertation.

at the detriment of thought. Schoolhouse geometry lessons might determine whether ordinary citizens became aware and responded (politically, artistically, and so forth) to this step towards globalization or surrendered their movements and thoughts to the state: Are students prepared to question their surroundings, and ask why something “is what it is”; or, are they taught to stay “inside the lines” of the King’s highway? Wordsworth’s response to early childhood mathematics education is important because it informs how the pupil might pass from practical geometry with all its ideological implications to speculative geometry and the ability to objectively relate to one’s own thoughts and feelings.

War Games

Rather than scenes of Wordsworth rehearsing his Euclid in school, the first book of the autobiographical *1799* and the *1805 Prelude* illustrates how geometry becomes part of the pupil’s everyday educational experience through play.⁵⁹ More exactly, Wordsworth describes the games that he and his friends played indoors during the colder months of the school year. He first describes a game of tic-tac-toe or noughts and crosses: “At evening, when with pencil and with slate / In square divisions parceled out, and all / With crosses and with cyphers scribbled o’er” (1.208-10). Wordsworth uses the verb “parceled out” only once more in book 2 of the same *1799* version, when he attacks those who would measure the origin of the mind using geometrical methods. The connection between such position games and geometry is not lost on the poet.

⁵⁹ Unless otherwise indicated I will take my quotes from the *1799* version, in *The Prelude, 1799, 1805, 1850*, ed. by Jonathan Wordsworth, M.H. Abrams, and Stephen Gill (New York: Norton, 1979).

The connection between children's games and practical geometry also seems to reinforce geometry's militaristic aim. If practical geometry is a primer for military strategy, then games might be seen as more dangerous because the game makes geometry digestible without making it seem compulsory; the game's social dimension makes it engaging; and the absence of "subjective violence" creates the illusion of gratuitous play.⁶⁰

However, these games are an important part of Wordsworth's response to a childhood education in geometry because they require what might be regarded as a "beginner's" act of reflection. While they engage the body to a degree, a game like tic-tac-toe played on a slate or wooden board remains reasonably "cool" according to Marshall McLuhan's criterion.⁶¹ Because the board targets few sense faculties and requires that the player "fill in" or supplement the missing information, tic-tac-toe and the like rely less on the spontaneous impulses of children and more on their imaginations to project objects where they are not—whereas in geometry, all the steps are already given.⁶² The consequences are twofold. The board game becomes a dynamic partner in the student's creation of spatial coordinates. These plotted points correlate with a

⁶⁰ In which case, the game is training for a kind of "objective violence" of the kind described by Hannah Arendt in *Eichmann and Jerusalem: A Report on the Banality of Evil*, and defined by Slavoj Žižek in *Violence* (New York: Picador, 2008), as "systemic" and "anonymous" (13).

⁶¹ See chapter two, "Media Hot and Cold" in McLuhan's *Understanding Media: The Extensions of Man* (New York: Signet, 1964), 36-45.

⁶² In an expanded version of this project, which will include a chapter focusing more exclusively on geometry education in schools, I will discuss the rise of mathematical "exercises" in the eighteenth and nineteenth centuries. These exercises are important because they mark the beginning of students "filling in" the missing information in mathematical problems. But literary representations stretching into the nineteenth century (Eliot's *The Mill on the Floss*, for instance) depict an era still without standard textbooks with exercises.

contained, external, “image of space” according to which thoughts and feelings array themselves, *à la* associationist philosophy of mind. No doubt, because noughts and crosses can only be written into certain spaces, the game’s standardization of locations and movements conditions the logical positions of thoughts and feelings, thereby imposing limitations on where the mind can go. The temporary relief from the classroom that the game seems to offer is a “hotter” means to discipline the student’s attention, but at the same time, the fact that the player is actually making choices, sometimes projected several “steps” into the future, encourages the mind to reflect back onto the board +1. The mind correlates with an external image of space, but adds to it something that previously did not appear. Despite the board’s limitations, the game is an early lesson in invention.

Wordsworth is not alone in tying position games to militaristic ends. The second generation Romantic poet John Clare makes explicit in his notes for a projected biography two different kinds of “playing soldiers.” One entry refers to imitating soldiers. It is a form of role-playing that too fully engages the player to allow for reflection.⁶³ The second entry, “Playing at soldiers – nine peg Morris,” refers to an ur-game dating back to 1400 BC, and from which its cousin games sprang: three men’s Morris, six men’s Morris,

⁶³ While I agree to some extent with McLuhan that “[art] and games enable us to stand aside from the material pressures of routine and convention, observing and questioning,” he too readily equates all games with “Aristotle’s idea of drama as a mimetic reenactment and relief from our besetting pressures” (*Understanding Media* 210). But McLuhan does not discriminate strictly mimetic games from diegetic forms. Games like nine peg Morris require the player only to operate pieces, which stand in for or represent actual agents under our control, and to this extent nine peg Morris, chess, and the like, take on a more diegetic or narrative form. But because the player assumes the role of a king or god moving the pieces outside of participating in the action, in some respect there is a form of mimesis at work here. Obviously we cannot be satisfied with this binary opposition and instead we should pursue thinking about para-mimetic forms or degrees of mimesis.

and tic-tac-toe.⁶⁴ While Clare's reference to nine peg Morris is more explicitly related to Britain's imperial goals, Wordsworth strengthens the links between his own game of tic-tac-toe and military might when, immediately following the first game, he and friends enter a few rounds of loo and whist:

Or round the naked table, snow-white deal,
 Cherry, or maple, sate in close array,
 And to the combat—lu or whist—led on
 A thick-ribbed army, not as in the world
 Neglected and ungratefully thrown by
 Even for the very service they had wrought,
 But husbanded through many a long campaign.
 Oh, with what echoes on the board they fell—
 Ironic diamonds, hearts of sable hue,
 Queens gleaming through their splendour's last decay,
 Knaves wrapt in one assimilating gloom,
 And kings indignant at the shame incurred
 By royal visages. (1.215-225)

While loo and whist are card games (and not “position games” played with diagrams, per se), they are not without mathematical principles and they allow Wordsworth to make clearer the connection between military endeavors and games more generally.⁶⁵

Moreover, as at least one critic has pointed out, Wordsworth departs in this scene from the game of loo in canto 3 of Pope's *The Rape of the Lock*.⁶⁶ Wordsworth emphasizes less the gameplay and its reflection of high society, and rather foregrounds his simple upbringing: the plain table versus the green cloth of the game room, the coziness of

⁶⁴ See John Clare, “Clare's Notes for his Autobiography,” *John Clare's Autobiographical Writings*, ed. Eric Robinson (Oxford: Oxford University Press, 1983), 162; and on the history of nine peg Morris see R.C. Bell, *Board and Table Games from Many Civilizations* (London: Oxford University Press, 1960), 91-95.

⁶⁵ See for instance Edmond Hoyle's *A Short Treatise on the Game of Whist. Containing the Laws of the Game: And also Some Rules, whereby a Beginner may, with due Attention to them, attain to the Playing it Well [...] Calculations directing with moral Certainty, how to play well any Hand or Game, by Shewing the Chances of your Partner's having 1 2 or 3 certain cards*. (London, 1743). *Century Collections Online* (ECCO). Gale Group.

⁶⁶ J.R. Watson, “Wordsworth's Card Games,” *The Wordsworth Circle* 6.3 (1975), 299-302 at 300.

sitting “in close array,” and more importantly, the care with which the boys handle their cards. In contrast to armies “in the world...ungratefully thrown by,” Wordsworth and his classmates preserve their “thick-ribbed army.” Indeed, Wordsworth wants to say something about treating those who do serve in the military with greater respect.

Most importantly for the early books of the *Prelude*, Wordsworth discovers in the loo and whist scene something related less to the arithmetical or probabilistic aspects of card play, and relates more to a fundamental act of construction. In the midst of game play he exaggerates the military metaphor when he says, “Oh, with what echoes on the board they fell.” The fall mirrors the Vulcan myth added to the 1805 version: “Those sooty knaves, precipitated down / With scoffs and taunts like Vulcan out of heaven” (1.557-8). Wordsworth embeds the force of Vulcan’s forge in the fall of the common foot soldier. Wordsworth conflates the god of the forge (pre-guild and pre-industry) with the common user of military technics. The originary source of machinery is part of a long trajectory that includes the sacrifice of the non-specialist technician. In a Rousseauvian vein, Wordsworth recognizes the proportionate increased efficiency of technical production and the increased deficiency of human bodies. And in earlier and later versions, Wordsworth concludes the game scene with the raging weather outside; only now, with the image of soldiers not merely falling to the ground but being cast out like gods from up on high, the scenes outside becomes an intimation of a similar act:

And, interrupting the impassioned game,
Oft from the neighbouring lake the splitting ice,
While it sank down towards the water, sent
Among the meadows and the hills its long
And frequent yellings, imitative some
Of wolves that howl along the Bothnic main.
(1799, 1.228-33)

The soldiers in Wordsworth's game fall with echoes that coincide with the breaking of the ice outside the cottage. The coincidence gives the game something of a mythic shine, and the implications begin to illuminate a larger allegorical pattern that Wordsworth has so far traced in book 1. In the "boat stealing scene," a cliff rises up "between [Wordsworth] and the stars, and still / With measured motion, like a living thing / Strode after [him]" (1805, 1.410-12). In the aftershocks of this event Wordsworth envisions "no familiar shapes...But huge and mighty forms" (1.422-24). While not in all cases, generally speaking, "forms" and "shapes" for Wordsworth indicate a connection to the Platonic forms or geometrical figures. Then, in the less sublime "ice skating scene," Wordsworth cuts a star-shaped diagram into the ice (he is "figure skating"). He suddenly stops at breakneck speed and creates the illusion that the world is spinning ever more rapidly, producing images that "stretch in solemn train" (1.487). In each scene Wordsworth discovers or stumbles upon some shape or form that recalls the figures of his Euclid. In each case, Wordsworth brushes up against the idea of these figures and their animation or their coming into existence. Lastly, in each case Wordsworth hovers precariously above icy waters. But of these three instances from Book 1, only in the game-playing scene does the surface of the water finally break. Through a game, Wordsworth now stands at the door through which the mind offers the earth something more than it provides.

However, Wordsworth's earth-shattering discovery is but a half-step forward. Following from the discovery that some underlying principle to the mind might exist, the only consequence that follows is a dead figure. The import of Wordsworth's discovery is easily missed when reading the 1805 and 1850 versions of *The Prelude* (5.450-73; 5.426-

51), but the *1798-99* sequence follows the game scene with a more appropriate conclusion, the scene of the “drowned man of Esthwaite” (1.258-279). The two-day event begins with Wordsworth, transplanted to the valley of Hawkshead. Not yet a mature adult with his “half-infant mind,” Wordsworth explores the shore of Esthwaite’s lake when he happens upon a pile of clothes without an owner (1.263). The next day, Wordsworth returns to this spot only to witness a group on a boat with “iron hooks and with long poles” pulling up “the dead man,” who “bolt upright / Rose with his ghastly face” (276-79). Bolting upright recalls—psychically but also supernaturally—the fallen gods and soldiers from the previous scene. The perpendicularity and stiffness of the drowned man indicates the coming into being of a geometrical line. And so it seems that Wordsworth’s Euclidean imagination produces partial, dead, drawn figures. The immediate implication is that extensive figures are not alive. But perhaps the mind’s products are equally dead. The terrifying image raises numerous questions. Where does the source of figures lie? Are figures dead upon existence? But how could they be alive before? Even at this early age, Wordsworth is troubled by the surface separating two realms: and it is not clear that either is sufficiently alive, or dead.

Certainly, some kind of border exists for Wordsworth. He charts a young edition of himself still under the command of his “glad animal movements,” but with each step he touches the ground beneath him, producing in the mind a differential that separates spontaneous immediacy and change from mediating reason and necessity. Wordsworth uncovers a border signifying a non-accidental world of principles, not in the form of mathematical formula exactly, but as an intimation of difference itself, or the correlative between figure and ground, mind and nature. As each scene demonstrates, shapes emerge

from or can be drawn on the surface of the ground, but the latter remains in each case something stable and impenetrable. Yet when the surface finally breaks, difference itself is laid bare to Wordsworth's imagination.

Ultimately, Wordsworth suggests that a principle of difference is made manifest on account of technological media, and in this case, the rudimentary medium of the board game. In some respect, it is the technical object that has delineated if not penetrated the border separating Wordsworth's envisioned shapes and the so-called ground from which these shapes emerge. Wordsworth is not alone in drawing out the role of technical media in the emergence of reflection and construction. Rousseau claims that when the idealized early human made fishing rods, spears, and engravings, he "finally produced in him a kind of reflection."⁶⁷ Whatever accidental circumstances evolutionarily led humans to chip, carve, dig, or hammer, these alterations to the "ground" (in some cases, the literal surface of the earth) elicited a "break" in the consistency of sense content perception. An absence is witnessed, and the imagination responds by "filling in" that missing information thereby "adding to" the so-called "given." No doubt, during early periods in human evolution "dark spots" such as a cave's entrance could have elicited similar inconsistencies in one's vision, drawing curious hominids closer so as to seal the gap. But as the human world becomes increasingly mediated by way of a technical infrastructure (and science explains away the mysteries of naturally occurring "dark spots"), the reflective mind struggles to find means by which it can disengage from its own second nature. The search for dark spots thus turns to human constructions.

⁶⁷ *Discourse on the Origin of Inequality*, trans. Donald A. Cress (1755; Indianapolis: Hackett, 1992), 46.

Eventually, from these Romantic meditations on technics and reflection emerges Derrida's concept of "différance." As Bernard Stiegler elucidates the term, "Différance is the history of life in general, in which an articulation is produced, a stage of différance out of which emerges the possibility of making the *grammē* as such, that is, 'consciousness,' appear."⁶⁸ The mind's ability to project beyond the present moment unfolds first from the inaugural chipping of the flint stone, as Stiegler would say, and not from Kant's a priori intuition, or an inherent time-consciousness. While "time" might inhere in the human brain from its earliest development, for a person to appreciate time's succession requires a "sense" of division. Therefore, a dynamic relationship with external sense content is necessary in order to make "present" the mind's constructive powers, or its ability to reflect back onto an image something additional or subtractive, just as a child sees where to mark the next *x* on the board.

The problem is that this principle, unearthed with the aid of eighteenth century technical media, only produces figures of the same kind: a straight line or erect body in the case of the drowned man. More specifically, the principles made available by such technical media can only be made manifest with a human face, that is, the personification (or prosopopeia) of a geometrical figure. The downside for Wordsworth is that the fixed, positional media at hand elicit the attention's activity only. And while the cooler medium invites access to its underlying principle, once the existence of a bordering principle is revealed, only fixed dead figures emerge on account of the attention's dominance. These figures are ordered from cause to effect, consistent, and linear, but they are also inanimate and anthropomorphic in nature. Their state is a problem because it

⁶⁸ *Technics and Time, 1: The Fault of Epimetheus*, trans. Richard Beardsworth and George Collins (Stanford: Stanford University Press, 1998), 137-8.

demonstrates that what emerges from a non-human, chaotic, or otherwise alien domain is already human, which indeed begs the question: human technics reveal a border that separates the human present from a non-human realm but the evidence for this other domain is only more human technical or representational evidence. In other words, uncovering this border introduces less a principle of difference and rather ushers in an infinite regress, a plane of presence shaped by technical media that ensnares human consciousness within the parameters of the present. So if this plane of presence and sameness is confirmed by attention and the emergence of dead figures, one possible approach to breaking this circular prison house is the role of thought and the emergence of figures not quite dead.

Wordsworth's Old Grey (Mile)stone: "The Discharged Soldier"

Wordsworth lucked out: As Rousseau explains, a poor mathematical education leaves pupils with no choice other than entering into the practical arts where the working adult becomes more machine than man. He criticizes the “whole of elementary geometry” because it only requires that the student copy “exact figures, combine them, [and] place them on one another.”⁶⁹ Furthermore, the geometry textbook encourages the pupil to move “from observation to observation,” the repetition of which suggests the patterned movements of Cartesian animals. Wordsworth escapes the almost zombie-like consequences Rousseau describes, but as a poet he often depicted the lives of those who are less fortunate. Rather than being liberated from the lessons of practical geometry, the figures Wordsworth describes are helplessly dependent on it, a system that becomes

⁶⁹ *Emile, or On Education*, 145.

ubiquitous for adults in the very infrastructure of their surroundings, for instance, the turnpikes punctuating British highways and diagramming the country. What is the consequence of configuring the terrain through which Wordsworth's characters pass? Rather than depict "normal" functioning people adhering to the geometrical cues that govern movements, Wordsworth tends to analyze the affective responses of those for whom human constructed space has left them "out of place." If the mind's thoughts and feelings really come to mirror a linear, succeeding sense of space's unfolding, what happens when those feelings fall out of order due to extenuating circumstances? With what mechanism does a Euclidean configuration of space aid a mind in disarray?

Perhaps the situation is worst for no one more so than Wordsworth's "Discharged Soldier," composed at Alfoxden in the early months of 1798 for the *Lyrical Ballads*, but eventually incorporated into book 4 of the *1805 Prelude*.⁷⁰ "The Discharged Soldier" begins with Wordsworth walking along a public road at night. After a series of trains of thought, he spies a veteran soldier at rest in the distance. At which point, Wordsworth remarks that this poor veteran supports his weakened body by leaning on a "milestone" (4.412-13). Only one critic that I know of has taken note of the milestone in particular.⁷¹ Yet because the soldier is "propped" on this mile-marker, "Half sitting, and half standing," it is difficult to disassociate him from it.

The soldier's association with milestone suggests two possibilities. It could be an ancient Roman milestone, which would be appropriate because these Roman relics were

⁷⁰ Butler and Green, *Lyrical Ballads and Other Poems*, 277n.

⁷¹ David Collings, in *Wordsworthian Errancies: The Poetics of Cultural Dismemberment* (Baltimore: Johns Hopkins University Press, 1994), 101, identifies the stone as a mile-marker, but alters it to fit the traditional "between life and death" interpretation.

in a way also discharged from the military. As Gibbon explains in *The History of the Decline and Fall of the Roman Empire* (1776), milestones were an indispensable extension of road technology, set up for the purpose of uniting distant parts of the country, and most importantly, improving the expediency of Roman legions.⁷²

Alternatively, the milestone could be new. Roman milestones were officially being replaced with the inauguration of turnpike trust legislation, beginning in 1663 and with subsequent acts throughout the eighteenth and nineteenth centuries.⁷³ Prior to the turnpike system, parishes were the primary caretakers of their local roads, as established by a statute in 1555, which proved to be a particularly inefficient source of maintenance (15-16). While waterways would then seem to provide an optimal alternative to poor roads, “Weirs, dams and mills blocked many rivers making continuous navigation difficult,” and the difficulty was exacerbated by “tolls extracted by the owners of these various projects” (7-8). Really, war was “the most serious threat to coastal shipping, as merchant seamen were often impressed into the Navy and enemy privateers seriously disrupted trade.”⁷⁴ As a consequence, commerce was intent on improving the road system of

⁷² Edited by Dean Milman, M. Guizot, and William Smith (New York: Harper, 1880), 1.280: “The advantage of receiving the earliest intelligence, and of conveying their orders with celerity, induced the emperors to establish, throughout their extensive dominions, the regular institution of posts. Houses were everywhere erected at the distance only of five or six miles; each of them was constantly provided with forty horses, and, by the help of these relays, it was easy to travel an hundred miles in a day along the Roman roads.”

⁷³ See Albert, *The Turnpike Road System*, 14. And according to Sidney and Beatrice Webb’s *English Local Government: The Story of the King’s Highway* (New York: Longmans, 1913), mile markers (wood and stone) were only established in England around 1720, with the exception of milestones left behind by the Romans (156).

⁷⁴ For instance, Albert cites the cost of coal carried by ship “from Hull to London was 10s per chaldron during peace and 14s during time of war” (7).

England (but of course, better roads did not prevent people from being impressed).⁷⁵ In other words, military action is not the only reason for establishing the turnpike system, but it was a major impetus operating in the background.⁷⁶

Thus, regardless if the soldier sits on an old or new milestone, he remains within an historical (if not old), technological, and militaristic framework.⁷⁷ The soldier may no longer find himself abroad, fighting, or protecting property, and yet he cannot escape an imperial system that reduces space to the fixed points of a Euclidean configuration.

When a soldier becomes Wordsworth's subject matter, one might expect a strong, upright figure, one trained in practical geometry, whose attention is sharp and undistracted. If that were the case, the soldier's dominant faculty of attention would reflect spontaneously the order imposed on him from childhood on: the step-by-step directions of an axiomatic method; the belief that one step must necessarily follow its previous step; and that movements are most efficient and powerful when enacted

⁷⁵ As Daniel Ennis, in *Enter the Press-Gang: Navel Impressment in Eighteenth-Century British Literature* (Newark: University of Delaware Press, 2002), explains that larger cities like London were better equipped to defend themselves against impressment because the populace outnumbered gangs, pamphlets kept citizens aware of the problem, and in some cases local authorities even came to the aid of potential abductees (26-7, 37). Larger cities were by no means immune from the press-gang, but hamlets and the King's highway offered the least resistant men, namely the poor (35). Hence the incorporation of impressment imagery in eighteenth-century balladry, a genre featuring the provincial farmers, shepherds, weavers, and their wives, the same men and women to suffered directly under the institution of impressment.

⁷⁶ I would like to thank Professor Dan Bogart for an extraordinarily generous exchange of emails in 2011, especially regarding the relationship between the military and the turnpike road system in England.

⁷⁷ I am using the word "framework," in much the same way that Heidegger deployed "enframing" in the title essay from *The Question Concerning Technology and Other Essays*, trans. William Lovitt (New York: Harper and Row, 1977), esp. 19-27. Enframing can be thought of as the technological conditions surrounding humans. Enframing can allow certain things to come into focus for humans, but it continues to obstruct thought because enframing always forces whatever it reveals to conform to an order that does not necessarily accord with the thing revealed—hence, the discharged soldier is not "outside" of the geometrical/graphical configuration established by the milestones. And because "attention" is the faculty of tracing the order of steps in a sequence, it is easy to see how attention is the faculty of "enframing," the "present-at-hand," and "standing reserve."

according to Euclidean forms, namely, the movements of military arms.⁷⁸ Finally, the soldier's dominant faculty of attention would be thought to overshadow his ability to identify with others as real, subjective agents—indeed, the more alarming consequence of attention. Because attention only teaches the mind to make connections between points, the mind might never develop the capacity to “turn” in its logical actions. The mind would lack the ability to “step back” from its images and intervene on them, especially in the case of an encounter with someone or something that did not already conform to his ordered thoughts and feelings. On account of the absent, intellectual maneuver, the discharged soldier lacks the mental capacity to recover himself when his thoughts and feelings become unraveled.

Instead the soldier appears to be broken off from a well-ordered mind corresponding with a well-ordered landscape. He enters a pre-figural state, according to numerous critics, more in tune with his picturesque surroundings than the organized space of the King's highway.⁷⁹ His attention follows not a train of consistent thoughts, but appears distracted by some distant wayward dreams. Accordingly, the soldier's proximity to the milestone seems to indicate that both are “discharged.” He no longer moves according to constructed space: he is “outside” the technical-symbolic framework.

⁷⁸ On Napoleon's interventions on standard combat strategy and his strategy's possible influence on Hegel's form of reflexivity, see the chapter “The Movement of Return” in Leon Chai, *Romantic Theory*, 52-87.

⁷⁹ The division between *technics* and *physis* is lifted, an erasure stressed by the discharged soldier's naked hands, according to Ron Broglio, in *Technologies of the Picturesque: British Art, Poetry, and Instruments, 1750-1830* (Lewisburg: Bucknell UP, 2008), 121-123. Paul Fry sees the soldier as outside of signification, in *Wordsworth and the Poetry of What We Are* (New Haven, 2008), 134; the soldier refuses to join the community for David Simpson (*Wordsworth, Commodification* 94); and David Collings sees the discharged soldier as resistant to incorporation within human culture (*Wordsworthian Errancies* 108).

More likely, the soldier sticks close to this lone milestone as if it might provide a degree of stability, one consistent point according to which all other objects might conform. Like Margaret from the *Ruined Cottage* stationed at the local turnpike toll, these characters attach themselves to the very roadside objects that provided a sense of certainty in the past but no aid in the event of that certainty's collapse. Accordingly, Wordsworth targets for his critique not the veterans, impecunious vagrants, and war widows of his poems but the media that fail to encourage an individual's "return" after disengaging from what has become their second nature. The "turnpike" of the *Ruined Cottage* is no doubt selected also for its ironic name: it is a physical sign—like a figure—but one that produces no turn in the mind of the traveler. It is a false sign, one that allows some to pass and ensnares others depending on their wealth, social status, or skin color. Wordsworth's intentions match Fielding's remarks in *Rape Upon Rape* (1730): "The Laws are Turnpikes, only made to stop People who walk on Foot, and not to interrupt those who drive through them in their Coaches."⁸⁰ And similar critiques are scattered throughout eighteenth century literature leading up to the Romantic period.⁸¹ But Wordsworth differs from his predecessors by drawing a connection between the standardization/regulation of the roads and an ideological deficiency: the highway can guide you so long as you can conform to it; those who cannot conform (physically, intellectually, financially, and so forth) are left groping to be readmitted into this spatial and symbolic matrix. It is not the case that the discharged soldier belongs to a non-

⁸⁰ *Rape Upon Rape; Or, the Justice Caught in his own Trap* (London: J. Wats, 1730), 2.2.16.

⁸¹ See also *The Life of William Barnesley, Esq.* (1743) in which poor and rich, gentry and livestock, must pass through the same gate where traffic jams emerge, and physical altercations become a spectacle for the ladies standing nearby. In *The Adventurer* by John Hawkesworth (1770-1), the turnpike is portrayed as a checkpoint for suspicious persons.

representational, pre-symbolic, or even “emancipatory” domain because he cannot adhere to the conditions of “normal” movements. Rather, he has become incapable of anything more.

So how exactly does Wordsworth escape the intellectual and affective conditioning that the everyday medium of the road prescribes to the soldier? At first, it is not clear that he does. The scene begins with Wordsworth trekking across a watery plane, what David Simpson characterizes as a visionary scene.⁸² Indeed, the “wat’ry surface” connects this fragment to earlier scenes in *The Prelude* where geometrical shapes emerge in the eye of the young poet’s mind (the water of the boat stealing scene, the ice skating scene, and the card-playing scene). Therefore, “The Discharged Soldier” belongs to the same sequence in Wordsworth’s upbringing and education, because in each scene he advances ever closer to uncovering a psychological turn that would allow him to recognize others. While not a formal education taught in schools, this affective education nevertheless appears dependent on Wordsworth’s geometrical knowledge. As evinced in “The Discharged Soldier,” the young university student, on vacation after his first year at Cambridge, has greater command of his mental processes and immerses himself no longer in childhood games but in the construction of mental images: “what beautiful pictures now / Rose in harmonious imagery; they rose / As from some distant region of my soul / And came along like dreams” (4.392-95). The images correspond with Wordsworth’s walk. “Step by step” he progresses along the road, much as the young geometry student follows each step of a proposition. Trains of thought in adulthood follow from attending to directions in geometrical propositions in childhood.

⁸² Wordsworth, *Commodification*, 92 and 94.

To a degree, Wordsworth's upbringing mirrors the soldier's insofar as he has received a formal education in practical geometry. At a turn in the road, matching a turn in the mind, Wordsworth encounters the soldier and "mark[s] him well" (404). Marking the soldier, as if taking aim, Wordsworth's attention is not only at work already, but now imbued with a militaristic impulse through skills acquired from attention-building exercises. Unarmed as he is, the poet's only response is to hide. Upon seeing that which does not conform to his current train of thought, Wordsworth all but rejects the figure before him.

But Wordsworth has a change of heart. No doubt the poet cowers at first, terrified by this strange figure on the road late at night. After this immediate reaction, his fears eventually subside: "Without self-blame / I had not thus prolonged my watch; and now, / Subduing my heart's specious cowardise, / I left the shady nook where I had stood / And hailed him" (4.433-36). When Wordsworth finally overcomes his fears, he signals to the veteran, who responds, and the two converse, although not without awkwardness. Perhaps Wordsworth needed to "step back" into the bushes before he could recognize the soldier. After all, the propped up veteran interrupts the road and Wordsworth's train of thought. The poet's shapes of fancy come to a halt, and he must recover. In retracting from the situation, Wordsworth can return to it, more open, able, and willing to sympathize. How is this turn of events possible?

Prior to his "change of heart," Wordsworth describes the soldier thus:

He was of stature tall,
Stiff in his form, and upright, lank and lean—
A man more meager, as it seemed to me,
Was never seen abroad by night or day.
His arms were long, and bare his hands; his mouth
Shewed ghastly in the moonlight. (4.405-411)

His elongated limbs and height have called to mind for other critics Rousseau's giants.⁸³

But given the sequence so far developed, it might be more profitable to follow those who have observed a resemblance between the soldier and the ghastly woodcuts of Wordsworth's childhood storybooks.⁸⁴ The depiction of illustrated literature appears for the first time in *The Ruined Cottage* adaptation, *The Pedlar* (1803-1804), in which the title character describes the most influential book on his youth:

A straggling volume torn and incomplete
That left half-told the preternatural tale,
Romance of Giants, Chronicle of Fiends,
Profuse in garniture of wooden cuts,
Strange and uncouth, dire faces, figures dire,
Sharp-knee'd, sharp-elbow'd, and lean-angled too,
With long and ghostly shanks, forms which once seen
C[ould never be forgotten]. (168-175)

There is a similar likeness for the impecunious angler of "Point of Rash Judgment" (*Poems on the Naming of Places*), the drowned man of Esthwaite, and the discharged soldier. Incidentally, all of these characters appear to have in common the medium of woodcut prints.

⁸³ Alan Bewell, in *Wordsworth and the Enlightenment: Nature, Man, and Society in the Experimental Poetry* (New Haven: Yale University Press, 1989), associates the discharged soldier's height to Rousseau's giant (84-85), an important association for later critics including Celeste Langan (although her concern is with the hermeneutic method and not the body) in *Romantic Vagrancy* (Cambridge: Cambridge University Press, 1995), 198-200, and David Simpson *Wordsworth, Commodification, and Social Concern*, 184-5. According to Rousseau, giants for early humans were only exaggerated descriptions of other people upon having first encountered them, and these exaggerations became the beginnings of metaphor.

⁸⁴ Following Bewell (85), David Collings claims, in *Wordsworthian Errancies*, 104, that the discharged soldier is for Wordsworth the "personification of his preternatural power of figuration, a figure of figuration." Collings also credits Paul Magnuson for pointing out the embodiment of these childhood images in the figure of the discharged soldier, from the latter's study *Coleridge and Wordsworth: A Lyrical Dialogue*. And Hugh Sykes Davies, in *Wordsworth and the Worth of Words*, ed. John Kerrigan and Jonathan Wordsworth (Cambridge: Cambridge University Press, 1986), 148, claims that the recurrence of these wood-like figures is an instance of mere repetition without difference.

While it might seem plausible then that the variable separating Wordsworth's education from the discharged soldier's training is a difference in medium, the storybooks (of the kind Wordsworth describes) and mathematical texts used in schools each relied on woodblock prints for their images. Wordsworth loved the woodblock prints of Thomas Bewick's strikingly similar images of impecunious vagrants, anglers, and rustics. But Bewick's big breakthrough had been the diagrams included within *Treatise on Mensuration*, written by Charles Hutton, Professor of Mathematics (1773-1807) at the Royal Military Academy at Woolwich.⁸⁵ The connection serves as a reminder of just how closely related these media are.

Still an important distinction separates these two mediums. The fictional characters in woodblock prints require a greater number of cuts in the wood: more grooves at different directions, angles, and at varying degrees of depth. Simply put, the storybook provides more information, and so, according to McLuhan's criterion, it is a hotter medium than the school geometry textbooks, with their thin, bare diagrams. I suggest that Wordsworth switching from seeing the discharged soldier in the likeness of a woodblock print to seeing him as the human that he is mirrors the transition between these two artifacts (from the storybook to the textbook). From using both literature and mathematics as a schoolboy, Wordsworth developed an ability to turn from feeling more immersed in an image to feeling more removed from an image of the same medium. Because one supplies more information, intensifying the stimulation, while the switch to

⁸⁵ While it is unclear how familiar Wordsworth was with the woodblock prints of Thomas Bewick in the late 1790s, Hazlitt notes Bewick's appeal to Wordsworth by 1800 (Wu 1.22). On Hutton and the *Treatise on Mensuration* see Howson's *History of Mathematical Education* (59-74). It was actually Hutton who showed Bewick the necessary techniques for cutting the woodblocks, for which Bewick would one day become famous. See Iain Bain, "Note on Bewick's Engravings," in Thomas Bewick's *A Memoir of Thomas Bewick, Written By Himself* (1862; London: Oxford University Press, 1975), xxix.

the other medium necessitated that the pupil supplement absent information, the young Wordsworth learns to maneuver back and forth between a school house version of immanence and transcendence, presence and absence, or in McLuhan parlance, hot and cool media.

Accordingly, Wordsworth he is in less jeopardy of meeting the same fate as the soldier—although madness is never far away in Wordsworth. Even if he were to suffer some great loss, and he suffers several in his life, his ability to remove himself from a situation, retreat from the infrastructure that conditions human thought and movement, affords him a margin of mobility, psychical and affective.⁸⁶ An extra logical turn at the poet's disposal allows him to re-turn back upon a thing, person, or event from a different perspective. The problem is that he may be restricted in this “double-take” to producing only an image of the same kind. Psychically, Wordsworth might re-approach an image from a different perspective, but he only re-approaches another image, another thing of the same kind from a different angle. The result is not exactly tautological, but if begging the question can be thought of in degrees, Wordsworth remains within a circular mode of thought and feeling.

What Wordsworth really requires is a mechanism for stripping away what was thought and felt previously. Perhaps he successfully reassesses the discharged soldier, reserving his fears and judgments. Certainly, Wordsworth is able to approach this man with a warm embrace. But the poet is only able to see and accept the discharged soldier upon realizing that he is not what Wordsworth thinks he is. The soldier is a man, not a

⁸⁶ For David Simpson, the “figurative faculty” is there to “make bearable the experience of loss,” but also to prepare one’s self mentally for “a full integration’ of the self into the world.” *Wordsworth: Figurings of the Real* (London: Macmillan Press, 1982), 41. Wordsworth’s interaction with the soldier is just one step in a series of many towards this full integration.

specter. What if he had been? Would Wordsworth be able to “correct” his thinking, realign his thoughts and feelings, or tame his attention? Consider a version of the story in which Wordsworth sustains a long conversation with this man, all the while without correcting his image of the soldier. Would Wordsworth accept this figure, or would he all along harbor some deep-seated fear, disgust, or possibly even violent feelings towards this alien. So what is needed is not a correction of perspective alone, but a hallowing out of former thoughts and feelings. To arrive at such a stage will require further explorations into the underlying principles of thoughts and feelings, different kinds of figures, and no doubt, a speculative form of geometry.

Section 2: Speculation

Chapter 2: Theorem

“Yet must I not entirely overlook,” says Wordsworth in reference to his undergraduate studies, “The pleasure gathered from the elements / Of geometric science.”⁸⁷ Wordsworth went to Cambridge from Hawkshead and thus began his engagement with speculative geometry: the study of Euclid’s figures and their underlying laws. It is an area of study often ridiculed by British thinkers, having no place even in the so-called idealism of George Berkeley who viewed speculative geometry as a science utterly removed from common sense and steeped in abstractions.⁸⁸ But was it really so removed from an earthly realm? And if so, then why, out of all his required reading for exams does Wordsworth turn to Euclid in book 6 of the *1805 Prelude*?

Wordsworth’s primary reason for turning to mathematics is the consolation geometry offers in moments of solitude, a common association since the days of Plato. Plato says in *The Republic* that mathematics can reawaken the soul when it is distracted by earthly concerns.⁸⁹ The line of thought is adapted to the early modern period by way of Descartes and Pascal, as charted by Matthew Jones: “Descartes hoped to delimit astonishment, wonder so powerful that it fixes the attention only on the first surfaces perceived, and to replace it with more controlled forms of appreciation that spur further inquiry into real knowledge of the causes of things [...] Pascal praised mathematical reason in no small part because it could generate affective wonder that forced human

⁸⁷ *1805, The Prelude*, 6.135.

⁸⁸ *A Treatise Concerning the Principles of Human Knowledge*, in *The Works of George Berkeley, Bishop of Cloyne*, 2.30.

⁸⁹ “The Republic,” *Complete Works*, ed. John Cooper (Indianapolis: Hackett, 1997), 527d-e. The same appears in Proclus, *A Commentary on the First Book of Euclid’s Elements*, trans. Glenn R. Morrow (Princeton: Princeton UP, 1970), 17.

beings to acknowledge their limits.”⁹⁰ Lastly, in the eighteenth century, Rousseau illustrates how mathematics as made manifest through the French garden could be a source for reflection in mourning.⁹¹ Perhaps it is an uncontested truism that mathematics is a vehicle for feelings of pleasure and renovation.

Indeed, Wordsworth compares himself (in an unfortunate selection) to the marooned slave trader, John Newton, who, now a slave to his remote situation, spends his days with only Euclidean shapes to keep him sane: “By the seaside, and drawn diagrams / With a long stick upon the sand, and thus / Did oft beguile his sorrow, and almost / Forget his feeling” (6.171-74).⁹² Rather than produce new arrangements for his thoughts and associated feelings, Euclid cuts off the marooned captain from emotions “almost” altogether. In other words, the mathematical object also has the power to put a block on the passions. But under these circumstances, the mind desires a break from the sensible-affective domain because it serves only as a reminder of the inmate’s imprisonment. Thus, under the right conditions, speculative geometry’s isolating effects become something to praise for Wordsworth:

Mighty is the charm
Of those abstractions to a mind beset
With images, and haunted by itself,
And specially delightful unto me
Was that clear synthesis built up aloft

⁹⁰ *The Good Life in the Scientific Revolution: Descartes, Pascal, Leibniz and the Cultivation of Virtue* (Chicago: University of Chicago Press, 2006), 124.

⁹¹ On Rousseau (with a link to Wordsworth) see Bonnie Blackwell, “The Pleasures of Geometry: Math and Melancholia in Rousseau’s *Nouvelle Héloïse*,” *European Romantic Review* 15, no. 1 (2006): 89-112, at 107. Blackwell’s main purpose is to demonstrate that “sciences like algebra and geometry continually haunt romantic writings that purport to repudiate them” (91).

⁹² On the significance of John Newton’s ties to the slave trade see Mary Jacobus’ *Romanticism, Writing, and Sexual Difference: Essays on The Prelude* (Oxford: Clarendon Press, 1989), 69-93.

So gracefully, even then when it appeared
 No more than as a plaything, or a toy
 Embodied to the sense—not what it is
 In verity, an independent world
 Created out of pure intelligence. (6.178-187)

The synthetic logic of Euclid builds up from definitions to forms that appear utterly disconnected from nature, a world of “pure intelligence.” Conversely, a world of pure intelligence is utterly cut off from “nature.” But in moments of true loneliness, this severance is regarded dearly.

And yet, what happens when the individual is not already in isolation, when meditation on geometrical figures becomes the primary preoccupation for a mind in good company? As test case, Wordsworth turns his gaze to Coleridge, who is steeped in

Platonic forms
 Of wild ideal pageantry, shaped out
 From things well-matched, or ill, and words for things—
 The self-created sustenance of a mind
 Debarred from Nature’s living images,
 Compelled to be a life unto itself,
 And unrelentingly possessed by thirst
 Of greatness, love, and beauty. (6.309-16)

Coleridge ruminates on Platonic forms, and thus he should be free from the pains that an emotional life bring. Instead, he has been sent off to warmer weather, literally, because: “health suffers in thee” (329). Opium is the more likely source of Coleridge’s illness, but the importance is that in book 6 Wordsworth aligns speculative science with the deterioration of health. No doubt, if one is stranded and deprived of all affective companionship, Euclid can aid the mind by forgetting the heart. But for a man with a wife, children, and friends, the heart’s sacrifice is too great, and eventually the mind

appears to follow suit. To be utterly cut loose from the human community, ensnares the mind within a mathematical matrix without end.

Accordingly, Wordsworth turns to natural objects and the figures they elicit. Perhaps Euclid took Wordsworth's mind off his separation from home and loved ones, but after months of study he wishes to reconnect with his "natural surroundings." Just prior to his thoughts on studying the *Elements*, Wordsworth begins with a natural object, a single tree (as in the *Intimations Ode*), from which follows "tranquil visions [...] bright appearances [...] Of human forms and superhuman powers" (6.105-07). The power of construction is indeed super-human; it is the ability to generate an idea untouched by earthly years. Mathematics leads to the same end. What mathematics does not seem to draw out are the "human forms," which, presumably, are those figures most closely associated with the affections in relation to other people. Apparently natural objects can have this virtue. Consequently, after a year hard at work in school, Wordsworth and his classmate depart from for a vacation in the Alps, hoping to "reconnect."

And yet something strange happens in Wordsworth's attempt to renovate his affections through nature. On first visiting Mount Blanc, the so-called "human forms" are not only absent, they are squashed:

That day we first
Beheld the summit of Mount Blanc, and grieved
To have a soulless image on the eye
Which had usurped upon a living thought
That never more could be. The wondrous Vale
Of Chamouny did, on the following dawn,
With its dumb cataracts and streams of ice—
A motionless array of mighty waves,
Five rivers broad and vast—make rich amends,
And reconciled us to realities. (6.452-61)

Mont Blanc exemplifies the object's ability to overwhelm the mind, not by way of its sheer size, but on account of what cannot be known: the dark side of the moon. Thereby, in casting a shadow on the geometrical arrangement of the mind's thoughts and feelings, the mountain's image produces an inconsistency in the mind's logical order, ultimately humiliating the observing subject.⁹³ But was not the natural object meant to strengthen associations between things, emotions, and thoughts? Should not Wordsworth have turned next to memories of childhood, his mother, and so forth? Surprisingly, both mathematical and aesthetic objects have the power to short-circuit everyday affective-associations.

Perhaps natural and geometrical objects share more in common than one might assume. Wordsworth reasons that they overlap in their effects because nature and mathematics are, at bottom, in "alliance":

With Indian awe [...] did I meditate
 Upon the alliance of those simple, pure
 Proportions and relations, with the frame
 and laws of Nature—how they could become
 Herein a leader to the human mind—
 And made endeavours frequent to detect
 The process by dark guesses of my own.
 (6.142-49)

Leaving aside for a future discussion the problematic identification with "Indian awe," for Wordsworth, mathematics and nature conform to each other, and their same underlying principles inform the inner workings of the mind. While it is difficult to reconcile given the traditional "poet of nature" image, Wordsworth shares realist

⁹³ On the sublime object's humiliating effects on the observer see Raimonda Modiano, "Humanism and the Comic Sublime: From Kant to Friedrich Theodor Vischer," *Studies in Romanticism* 26, no. 2 (1987): 231-244.

tendencies regarding mathematics, found today in the work of Alain Badiou.⁹⁴ The scary part is that if one acquiesces to this mathematical domain, all connection to sensible/affective relations may be lost. But Wordsworth also shares strong materialist-constructivist tendencies, as found in the work of Slavoj Žižek, which suggest that the mind is not an utterly passive subject imposed upon by this mathematical substratum.⁹⁵ Instead, the “mind” can have a significant impact on reality through the construction of new figures (which eventually lead to new underlying principles, e.g. algorithms). The answer to how the figures of natural objects actually allow the mind to re-align human thoughts and feelings (and possibly produce new ones) lies in the structure of those laws which Wordsworth refers to as “processes,” and which he will endeavor to explain.

Thus a more thorough analysis is required regarding the figures elicited by natural objects and their connections to and departures from mathematical figures. To talk about figures (image, metaphor, or trope) during the Romantic period is to a large extent to talk about the figure’s structure, or the relationship between parts and whole. For most modern inquiries into the Romantic figure, its parts, and its relationship to itself or things outside of itself, a good starting place is Paul de Man’s well-known but contested early works.⁹⁶ In conclusion to his investigation of late-eighteenth century symbol and

⁹⁴ Alain Badiou, “Philosophy and Mathematics: Infinity and the End of Romanticism,” *Theoretical Writings*, trans. Ray Brassier and Alberto Toscano (London: Continuum, 2004), 21-39.

⁹⁵ See Adrian Johnston’s review and elucidation, “Slavoj Žižek’s Hegelian Reformation: Giving a Hearing to *The Parallax View*,” in *Diacritics* 37, no. 1, (2007): 3-20, at 10.

⁹⁶ For instance see, Jean-Pierre Mileur, “Allegory and Irony: ‘The Rhetoric of Temporality’ Re-Examined,” *Comparative Literature* 38.4 (1986), 329-336. Regardless of the criticisms against de Man’s work and especially his personal life, David Simpson rightly places his contributions to literary theory in a larger milieu (including critics like Geoffrey Hartman, Harold Bloom, and J. Hillis Miller, commonly referred to as the “Yale School of Criticism”) that looked at romantic-era poetry in terms of disjunction, fragmentation, and the negative. See “Romanticism, Criticism, and Theory,” in *The Cambridge Companion to British Romanticism*, ed. Stuart Curran (Cambridge: Cambridge University Press, 2006), 1-24.

allegory, de Man claims that in a symbolic domain, thought coincides with being, part coincides with whole, and thus space displaces temporal change. Departing from critics like Wimsatt, Abrams, and Wasserman, de Man claims that only through the language of allegory did the Romantic poets, especially Wordsworth, reveal an “authentically temporal destiny.”⁹⁷ Because the allegory is not part of the thing to which it refers, it must refer to “another sign that precedes it,” and thus the “relationship between signs necessarily contains a constitutive temporal element.” De Man insists that Romanticism distinguishes itself by emphasizing the disjunctive relationship between signs, that is, the “void of temporal difference” (191). Nicholas Halmi resumes this investigation, especially with respect to the symbol and its referent, when he stresses that for the German Romantics and Coleridge, the symbol was supposed to be identical to [...] its referent, and vice versa.”⁹⁸ More recently, Dalia Nassar explores the relationship between Absolute, the mind, and nature, and stresses that for the German Romantics nature as a unity (as an objectified figure) could only emerge “*in and through difference*,” that is, the parts determined the whole and the whole determined the parts.⁹⁹ In other words, in the ongoing investigations of the figure, there remains a tension between parts and whole and a question as to whether or not this tension is determined by a kind of identity, be it tautology or synthesis, or a kind of difference, be it analogy or analysis.

⁹⁷ “Rhetoric of Temporality,” 190.

⁹⁸ *The Genealogy of the Romantic Symbol* (Oxford: Oxford University Press, 2007), 25.

⁹⁹ *The Romantic Absolute: Being and Knowing in Early German Romantic Philosophy, 1795-1804* (Chicago: Chicago University Press, 2014), 3.

But the aforementioned studies neglect the importance of the medium according to which the figure is constructed, its corresponding feeling, and its underlying law.¹⁰⁰ At first it appears that a natural object and a book of geometry both produce images of geometrical objects in the mind, rendering the medium negligible. And yet, a more thorough analysis might reveal that the various media produce figures and feelings according to the same principles—only to a point. As Wordsworth documents a greater variety of media, technological and naturally occurring things (i.e. not fabricated by human hands), the greater variety he uncovers in the underlying principles governing reflection and the construction of figures in the human mind. Thus to alter the medium over time might result in syntactical changes within the process of reflexivity and construction, thereby yielding new and unfamiliar figures, and ultimately, a different kind of relationship to reality.

Proclus and Figures

If the Romantics wanted a good book on the speculative implications of Euclid's science, Thomas Taylor offers the best source in his 1792 translation of Proclus' *A*

¹⁰⁰ The objection being raised here is now a seasoned one raised by Friedrich Kittler against Jacques Derrida and his ilk (including Paul de Man). Still, it is an argument worth emphasizing in Romantic studies as demonstrated by the works of Halmi and Nassar, which ignore discussions of media around 1800. Indeed, many of the problems poststructuralism addresses are the same problems of Romanticism (human relationships are mediated by language), but the way forward for Kittler is to study the technological vehicles through which information is stored and circulated. On the connection between French theory and Romanticism see Manfred Frank, *What is Neostructuralism?*, trans. Sabine Wilke and Richard Gray (Minneapolis: University of Minnesota Press, 1989). On Kittler's response to poststructuralism see Geoffrey Winthrop-Young and Michael Wulz's "Introduction" to Friedrich A. Kittler, *Gramophone, Film, Typewriter*, trans. Geoffrey Winthrop-Young and Michael Wulz (Stanford: Stanford University Press, 1999), xvi-xx.

Commentary to the First Book of Euclid's Elements. While many works throughout the eighteenth century mention speculative geometry, often disparagingly, they infrequently cite a source text. Spinoza and his followers are likely targets of such criticism, on whom Marjorie Levinson has made a strong case for a connection to Wordsworth.¹⁰¹ Indeed, Spinoza's *Ethica Ordine Geometrico Demonstrata* is presented in an axiomatic order (like Euclid's *Elements*), but it is not really about geometrical figures—it's about God. Whereas the fifth century Neoplatonist makes it explicit that his purpose is to provide some "starting points for speculative reflection to those who seek knowledge of the intelligible and invisible world."¹⁰² The final aim of the inquiry is the "complexities involved in the structure of the cosmic bodies," and the means of apprehending these structures is the study of individual "cosmic figures."¹⁰³ On account of his aims and the timing of the book's translation, there may be more overlap than has been recognized in the past between speculative geometry with its study of universal cosmic figures and Romantic poetry with its study of universal sensible-affective figures.

If Wordsworth encountered Proclus, it was more likely indirectly. Thomas Taylor was well known and commented on within Wordsworth's circle, although not always favorably.¹⁰⁴ Wordsworth owned a copy of Plato's *Timaeus*, to which Proclus refers numerous times throughout the *Commentary*. And by 1808 or 1810, Coleridge acquired a

¹⁰¹ "A Motion and a Spirit: Romancing Spinoza," *Studies in Romanticism* 46.4 (2007): 367-408.

¹⁰² *A Commentary on the First Book of Euclid's Elements*, trans. Glenn R. Morrow (Princeton, Princeton UP, 1970), 137.

¹⁰³ Thus Lorenzo Magnani, in *Philosophy and Geometry: Theoretical and Historical Issues* (Dordrecht: Kluwer Academic Publishers, 2001), claims that ancient Greek geometry was about the study of individual figures and their autonomy, and not so much a study of "application of calculation techniques" (91).

¹⁰⁴ Coleridge refers in a letter to John Thelwall (19, November 1796) to Taylor as the "English Pagan," in *The Collected Letters*, 1.260.

copy of the *Commentary* and filled the margins with his notes, which suggests that Proclus may have been a topic of conversation between him and Wordsworth by the time the latter writes his prose essays on landscape aesthetics, including his essay on the sublime and the beautiful, which is filled with geometrical references of the kind that Proclus makes.¹⁰⁵ Even if Wordsworth knew little or nothing of the *Commentary*, Proclus establishes a vocabulary and a narrative for discussing the geometrical aspects of Wordsworth's engagement with figures, parts and wholes, and the sublime and the beautiful. Above all, it is a point of interest for studies in Romanticism to see how Wordsworth's link between geometrical principles, figures, and feelings marks a historical distinction from Proclus' impassive interpretation of figures.

For Proclus, figures follow from the "self-moving and divine ideas," which can be found in intelligible and bodily dimensions (112). He defines a figure as that which is subject to change, either through addition, subtraction, division, or is "affected in any one of various ways" (109-10). His analysis begins with artistic figures, for example, models or sculptures, which follow from ideas in the artist's mind. Figures can also be found in nature. The figures of nature are especially important because they contain the "constitutive proportions in the sublunary elements," while the stars in the heavens define "the powers and motions of the heavenly bodies" (110). Unlike artworks, the figures found in nature supply human understanding with some insight into the motion of less earthly and more divine forms. From nature, Proclus proceeds to the figures of the soul,

¹⁰⁵ John D. Rea, in "Coleridge's Intimations of Immortality from Proclus," *Modern Philology* 26, no. 2 (1928): 201-213, connects Proclus to the composition of Wordsworth's "Intimations of Immortality" and Coleridge's "Ode on Dejection," and places the earliest possible connection between Coleridge and Proclus at late November 1796 with the purchase of Marsilio Ficino's Latin anthology of Neoplatonic philosophers (206-7).

which are self-moving and disembodied. “Even more divine,” Proclus continues, are the “intelligible figures,” and these are “shining everywhere with indivisible and intelligible light, generating, effecting, perfecting all things, being present equally in all of them though themselves steadfast and unmoved, bringing unity to the figures of the souls and keeping the aberrations of sensible figures within appropriate bounds.” Finally, above everything else are the figures of the gods that provide boundaries to all that falls beneath them, and even the universe itself. Thus Proclus concludes that all figures, even the seemingly insignificant and bodily ones, follow from the highest figures among the gods and the first cause, or the One (111).

For Proclus, the soul partakes of the external, extended, and earthly realm when it extends itself as a line towards those moving objects that excite the soul’s activity. In this sense, the soul is itself an extended or an earthly thing. But when the imagination projects these images on the screen of the mind, the soul ceases to extend itself as a line and instead curves inward upon itself. The soul finds there a trove of figures. Following Nietzsche’s history of philosophy, the Neoplatonic stage marks a point in time when the sage might actually have had access to the One, and so Proclus suggests that eventually the figures will fall away, leaving only a perfect unity or an image of the One. But in the age of Kant, the closest that the Romantics can come to the One is the stage just prior to the figureless image.¹⁰⁶ Thus Romantic images, myths, and narratives about creation can

¹⁰⁶ Friedrich Nietzsche, in “How the Real World Finally Became a Fable,” *Twilight of the Idols*, trans. Duncan Large (Oxford: Oxford University Press, 1998), humorously describes the real world at this time as the “old sun in the background, but seen through mist and skepticism; the idea become sublime, pale, Nordic, Königsbergian” (20).

refer to something that precedes it, such as a divine being, but can never represent it directly.¹⁰⁷

While Proclus provides a tidy end to the soul's engagement with earthly figures, he nevertheless touches on a couple of problems that the Romantics will exploit. External objects appear to move, but they also appear to have distinct boundaries and limits. Human perception is limited by surface planes, and these are limited by lines which are ultimately limited by points. Without these boundaries, sensible objects would "stretch to an infinite size" (71). For the eighteenth century and Romantic-era writers, objects like the ocean seem to lack these limiting lines and thus produce an image in the mind of indefinite extendedness.

At issue in this indefinitely extended object is not its size, but the feeling that emerges from the attempt to grasp in the mind the totality of the object. Proclus claims specifically that feelings only distract the soul from the "passionless activity" of "formless knowledge" (37). But Romantic-era writers explicitly add feeling—usually a negative one—to the encounter with external objects in order to account for how and why the observer returns to thoughts or figures regarding the mind's relationship to nature or the mind's relationship to itself. For instance, Immanuel Kant contrasts beautiful things found in nature to sublime objects. The former satisfies the understanding, adorning it with a "feeling of the furtherance of life," whereas the sublime attacks the imagination with a "momentary checking of the vital powers."¹⁰⁸ The natural object itself is not sublime; it merely produces a feeling of sublimity in the mind because the object cannot

¹⁰⁷ On the ground prior to "creation," see F.W.J. Schelling, *Philosophical Investigations into the Essence of Human Freedom*, trans. Jeff Love and Johannes Schmidt (Albany: SUNNY Press, 2006), at 27-8.

¹⁰⁸ *Critique of Judgment*, trans. J.H. Bernard (New York: Hafner Press, 1951), 23.83.

be perceived in its entirety (what Kant refers to as the “mathematical sublime”). Shaken by the indicative formlessness of the object, the mind struggles to reconcile the negative with an image in nature. Without a corresponding image, the imagination must fall on its own resources when faced with this formlessness, resources which were predisposed to tremble given the imagination’s inherent playfulness, or its lack of order. Thus, in the face of the sublime, only reason has the means to soothe the mind’s restlessness; the imagination has gone beyond the understanding—beyond the senses—and having reached its “maximum” capacity for the “whole,” attempts to go even further before recoiling back “into itself” (§26.91). Finally, as the imagination becomes aware of its own transgression, it finds satisfaction in the act.

Despite the insights of eighteenth century aesthetic theorists regarding affective responses to objects of varying size, often their studies refer to still images. If objects move, and the imagination produces an image of them, it constructs spatial images that pass through time. If the lines that delineate empirical objects impose limits on the spatial dimensions of a thing, an intelligible figure must also impose limits on the temporal dimensions of a thing. For Proclus, the imagination comes equipped with an ability to preserve an impression in a constant spatial form, that is, a still image or a memory. Without this ability, “the later [sense impressions] would obscure those that preceded them—just as no body can at the same time and in the same place have a series of shapes, for the earlier ones are erased by the later” (77). Without figure-construction, as a limiting mechanism, sensible objects would not only appear as moving spatially, but they would never cease to appear moving, creating a “ghost image” effect. Even if these residual images diminished after a prolonged period of time, for a mind incapable of

setting limits on cognized sense content, the world would appear as nothing more than a grey smear.

Thus the mind's ability to select an object for the memory allows the mind to preserve that object by assigning it temporal boundaries. It is an important function of the mind, for without the ability to construct determined representations sensible objects would appear utterly indistinct. Objects would move from previous coordinate locations to present locations, ushering forth the dissolution of all temporal distinction, so that the observer would no longer suffer from object traces across time and space. Inevitably, time would cease to exist as an aesthetic category at all. And accordingly, the observer would be barred from the temporal unfolding of everyday growth and perishing. But it may not be necessary to figure or contain every single object at all moments throughout one's entire life. If objects are only known in relation to one another, perhaps all that is necessary to prevent the total dissolution of time and space is the figure of a single object according to which all other can be oriented. And yet, if all objects are mathematical at bottom, then how can one stand out from the others? And under vertiginous conditions, how could such a fixed image be supplied anyway? As Proclus intimates, the mind will have to rely on its own resources—but if geometrical images spring from the One and the One is no longer regarded as a viable source, from where do the Romantics draw such saving graces?

Phantasmagoric Procession: Figures Of/In the City

In the Preface to the *Lyrical Ballads* of 1800, Wordsworth expands his critique on the fast pace of city life. He regards the present age as significant because for the first time a multitude of causes have “blunt[ed] the discriminating powers of the mind.”¹⁰⁹ A rising population in metropolitan areas has led to a “uniformity” of occupations and a “craving for extraordinary incident which the rapid communication of intelligence hourly gratifies.” With the rise of newspapers, the increased speed of road traffic, and the density of the population in places like London, the human mind has never before in history witnessed the flow of information at this pace and scale. The speed of city life dampens the mind’s ability to distinguish objects, to gaze on them at length, or to contemplate them until their organization as a unified whole becomes clear. The result a phantasmagoric procession, lines of objects passing indiscriminately across the screen of the imagination, and prohibiting the mind from contemplating any one of these objects in isolation.

While critics have examined the influence of technological media on the mind’s construction of figures, I am more concerned here with the city as a “whole,” and its ability to disrupt the mind’s ability to reflect and construct. Indeed, the city as a collection of accelerated media intervenes on the mind’s logical order of thoughts and feelings. The problem is that the urban center provides no recourse for their recuperation. The process of reflexivity and construction is largely dismantled; or, rather, the mind fails to produce any individuated image on account of the speed and volume of sense content. What follows is not an utter disconnection from the sensible-affective realm, but a connection that only produces in the mind a horrific nightmare grounded in the

¹⁰⁹ “Preface to *Lyrical Ballads* (1800),” *The Prose Works*, 1.128.

mathematics of infinitude: space without time. Without any sense of a single object, no thoughts or feelings can array themselves according to a meaningful temporal sequence. Everyone at each moment becomes substitutable for everyone else at every other moment. For Wordsworth, the city threatens to annihilate relationships with others by reducing everything to “identity” or the “same.”

In book 7 of the *Prelude*, Wordsworth’s idealized image of London and the London he actually witnesses at first seem very different. He begins with “Processions, equipages, lords and dukes, / The King and the King’s palace” (110-11). The procession of delightful images is quickly contrasted with the “motley imagery” of the actual London scene. Wordsworth’s kings and lords are transformed into an “endless stream of men and moving things” (158). Wordsworth continues to enumerate what he sees in a style that mimics the phantasmagoric or nearly blended quality of the sights. He hardly pauses as he details the “broad highway appearance” (155), including decorated horses, “Stalls, barrows, porters, midway in the street / The scavenger that begs with hat in hand, / The laboring hackney-coaches, the rash speed / Of coaches travelling far, whirled on with horn / Loud blowing, and the sturdy drayman’s team / Ascending from some alley of the Thames / And striking right across the crowded Strand / till the fore-horse veer round with punctual skill” (162- 170). Objects not only move, but they also veer and crisscross, creating the illusion of chaos. Furthermore, the details sometimes give way to less particular images, for instance, the unrecognizable faces of the crowd. When Wordsworth details the “weary throng,” the features begin to leave traces, as if Wordsworth were making his observations while spinning in a circle: “The comers and the goers face to face— / Face after face—the string of dazzling wares, / Shop after shop.” (172-4). The

stable contours of things are beginning to dissolve. Indeed, Wordsworth captures the principle of these shifting forms in his conclusion to the book. The “trivial objects” of the city form phantasmagoric processions with their “perpetual flow”: “melted and reduced / To one identity by differences / That have no law, no meaning, and no end—” (702-05). As Theresa Kelley observes, the scene becomes “anti-organic because it emphasizes parts, including body parts, over organic wholes.”¹¹⁰

The city’s phantasmagoric images are important because they impress a new order upon the mind’s thoughts and feelings, and the effect is apocalyptic.¹¹¹ If everything is associated with everything else, the city might offer the conditions under which one dissolves former prejudices. A mind that begins to “match” or “fit” the flow of urban information, might adapt to the pace, scale, and shape of this circulation, thereby rearranging the mind’s associations and creating new paths. But where every object is reducible to every other object, how can Wordsworth hope to generate meaningful connections at all? In a perverse form of the symbol or what Northrop Frye referred to as the “anagogic state,” the plotted points of Wordsworth’s thoughts and feelings do not refer to one another but are replaced by one another.¹¹² Rather than similarities becoming differentiated, differences begin to identify. Accordingly, Wordsworth loses his capacity

¹¹⁰ *Reinventing Allegory*, (Cambridge: Cambridge University Press, 1997), 131.

¹¹¹ Terry Castle, in *The Female Thermometer: 18th Century Culture and the Invention of the Uncanny* (New York: Oxford, 1995), 141, explains that the magic lantern is a box lit from the inside that projects transparent images onto an external surface. Such technical innovations—along with the rise of physiology and psychology—demystified the ghosts and goblins of the pre-modern world. But according to Castle these supernatural beings are merely replaced by ghostly ideas, ideas too intense to contain “internally,” and will eventually become the uncanny for Freud (165).

¹¹² *Anatomy of Criticism* (Princeton: Princeton University Press, 1957), 119.

for detached reflection, and any subsequent construction of a figure becomes unlikely. In Kelley's terms, Wordsworth cannot construct an image of any single whole.

But is it really the case that London supplies no image of a "whole"? What about "the" whole? The answer can be found through a closer analysis of the constellation of processional images in Wordsworth's larger body of work. Surprisingly, the first instance of a procession appears in Wordsworth's first recorded prose fragment from 1787. The young poet's imagination produces monstrous images of animals and people exchanging forms, creating a fantastic series, which generates in the viewer a profound terror that he nevertheless holds "dear."¹¹³ As a child, there is joy to be had in animal speed and movement. The imagery appears again six years later in one of Wordsworth's first published works, *An Evening Walk* (1793). Z.S. Fink focuses on a passage that connects the "visionary warriors [...] winding in ordered pomp" to Christopher Wordsworth's notebook, with ties to Virgil's *Georgics*, *Paradise Lost*, Thomson's *The Seasons* and a scene from James Clarke's 1787/89 *Survey of the Lakes of Cumberland, Westmorland, and Lancashire*.¹¹⁴ Both anticipate a later fragment from Wordsworth's time in Germany, "When in My Bed I Lay," where,

Processions, multitudes in wake or fair
Assembled, puppetshews with tru[m]pet, fife,
Wild beasts, and standards waving in the [?field],—
These mounting ever in a sloping line.
These vanishing, appear'd another scene—
Hounds, and the uproar of the [?chase], or [?steeds]
That galloped like the wind through standing corn;
Then came a throng of faces all [?arranged],
Unutterably horribly arranged,

¹¹³ *Prose Works*, 1.7.

¹¹⁴ *The Early Wordsworthian Milieu: A Notebook of Christopher Wordsworth with a Few Entries by William Wordsworth*, ed. Zera Silver Fink (Oxford: Clarendon Press, 1958). 30-31.

In parallel lines, in feature and in look
 All different, yet marvelously akin;
 Then files of soldiery with dazzling arms,
 Still mounting, mounting upwards, each to each
 Of all these spectra, every band and class,
 Succeeding with fantastic difference
 And instant, unimaginable change.¹¹⁵

The scene represents Wordsworth's most explicit instance of processional imagery, and coincidentally, of a mathematical substratum. Passing before the screen of his imagination, Wordsworth observes images from a fair arranged according to a single line, like a comet darting across the sky. Spatially, it is a mostly empty scene, devoid of other objects: black. As the first string of images recedes, he is left again with nothing.

Suddenly, a set of dogs and horses on a hunt dart forth, followed by indiscernible faces along parallel lines. They are interchangeable in appearance, and yet they adhere to a particular order, as if "nature" is contained. Finally, legions of soldiers ascend, hardly perceivable in their constant transformation, their "instant, unimaginable change." The details are innumerable, un-re-cognizable, and yet, conducted according to an invisible order.

Moreover, the manuscript of "When in My Bed I Lay" from Wordsworth's notebooks in Germany covers a mathematical equation. The poem covers part of the proof at the top of the page and then begins again following Wordsworth's final sum. It is only a simple budget of his costs entered onto the pages beforehand, and the conversions are not geometrical in kind. Still, the mathematical coincidence is striking. The equation provides an image of the procession's underlying metaphysical conditions. The immanent and transcendent dichotomy is reinforced by Wordsworth's overlapping layers of

¹¹⁵ In *Lyrical Ballads and Other Poems*, 316.

Following Ernest de Selincourt, W.J.B. Owen links “When in My Bed I Lay” back to book 7 of *The Prelude*, and indeed the medium of the city reinforces the rationalist approach to the universe, because its fast pace and constant flow of information immerses the mind in such a way that “distance,” “reflection,” and the “outside” become more illusory than the accidental conventions of everyday life.¹¹⁷ There is nothing to add to the image, or to subtract. In this universe, so-called “reflection” is only fitness. The mind merely mirrors the geometrical principles underlying the accidental appearance of things. And what can be done with fitness but uncover one’s place within the “natural order.” The pupil is free to forego questions of action, free will, hope, even making or *poiesis*—because everything is always already in place. All that one can do is “discover,” and all that remains to discover is what is and where. There is no outside, only marks on top of marks conditioned by an unchanging flatness, or in Wordsworth’s case, a sheet of paper.

Despite no signs of sympathy in the chaos of London, Wordsworth still has affective responses. He writes of “one feeling was there which belonged / To this great city by exclusive right” (7.593-4). The feeling is exclusive to the city because it follows from the dis-connection to surrounding things and people. Counter to notions of sympathy, it can be thought of as a non-reciprocal feeling. And while the description resembles Nancy Yousef’s definition of intimacy, it stands to reason that a disconnection from a large group or crowd is different from a short-circuit between two individual people, and so Wordsworth’s feeling ought to be thought of as an additional kind of

¹¹⁷ *The Prose Works*, 6.

intimacy, determined by the quantity of people involved.¹¹⁸ But on account of the psychological effects from which this feeling derives, it also shares resemblances to the almost solipsistic joy of Wordsworth's dreaming men (and his childhood self), feeding on their mathematical visions. For, as Wordsworth qualifies, the horde of faces tease out this feeling "Until the shapes before my eyes became / A second-sight procession, such as glides / Over still mountains, or appears in dreams" (601-3). Euclidean speculation, the urban maelstrom, and as Wordsworth now confirms, his wild dreams all produce in him a feeling of disconnection, which he may have once held "dear" when there was a distinction between the "dream" and "reality." The mistake to be made (and this is the bad nihilist conclusion) is that now no negation can be made with respect to others' being, existence, or value because everyone is the same. Here all lives matter.

But Wordsworth's disassociation from his surroundings comes to a sudden stop as a single object intervenes on the procession of his thoughts and feelings. "Abruptly," Wordsworth is shaken from the intense grip of the urban setting, but not on account of a collision, crash, or conflict as typical moments of tension might indicate. Rather Wordsworth is "smitten with the view / Of a blind beggar, who, with upright face, / Stood propped against a wall" (7.611-13). Resembling the "drowned man of Esthwaite"'s Euclidean upright-ness (a characteristic of the dead), but perhaps closer to the "discharged soldier" in being "propped" by the medium on which he depends, the blind beggar crystalizes this triage of figures as an "auxiliary" mark or line connecting one intellectual state or mood to another state. The figure of the blind beggar remains still, and his cool façade requests (without asking) the passerby to supply the information

¹¹⁸ Youssef charts positive and negative forms of intimacy throughout *Romantic Intimacy*.

missing from his face. A sign around his chest lays bare his life in a handful of characters. The blind beggar stands in stark contrast to a London city-street performance of “Jack the Giant-killer,” featuring the allegorical character who brandishes a cape reading “INVISIBLE” in flames (303, 310). The actor’s lettered cape shares the same lettered medium with the beggar. But in combination with his body’s performance, the actor requires less of the spectator’s imagination. This body provides the necessary information, and thereby places limits on what the allegory might be. Counter to the actor, Wordsworth compares the beggar to the austerity of a statue. His body adds very little to nothing to the sign. It only invites or begs: he is an interrogative medium, cool and unnamed in his non-identifying opacity. Thus Wordsworth’s mind “did at this spectacle turn around,” and so the blind beggar intervenes on the poet’s immersion within the space of London. Here no one matters.

The problem is that Wordsworth can only free himself from his spontaneous relationship to the city at the blind beggar’s expense. Wordsworth requires an object in order to reestablish consistency in the logical arrangement of his thoughts and feelings. Normally, a “natural object” such as a tree in the center of a field would serve as an orienting landmark. Without sprawling landscapes or mountains in the city, the impecunious vagrant satisfies the role of marker, only without the positive status Wordsworth normally assigns to objects in nature. The beggar is blind; he possesses no wealth; and he lacks a name: He is nothing, holding a sign that merely reinforces his non-status. Like a black hole inserted within the frenzy of urban dwellers, the beggar functions as a consistent (negative) convention according to which the rising middle class orients itself, including the poet. His negation provides an opportunity for the naïve

passerby to pause, reflect, and recognize himself in relation to the singular blank/black face of the sightless/soulless nobody. Indeed, there is a way to distance one's self from the medium of the city from within the city, but only by way of sacrificing the personhood of the other—by reducing the other to no-thing.¹¹⁹

Thus the city does not sever the pupil from the “world”: the city makes it too much with us. The mind cannot distance itself from movements executed with such speed, scale, and intensity that the self dissipates from within the city limits, unable to reflect on any order. If all things become interchangeable within this diagram of everyday life, the self is equally part of the frenzy. Everyone becomes substitutable for everyone else.¹²⁰ Accordingly, the city's ability to “hollow out” self-consciousness suggests that it provides the conditions for an emancipatory politics. Everyone is raised (or reduced) to the same value. However, the blind, poor, and foreign bodies in the city stop the observer, functioning as reminders of what one is not. The socio-economic, racial, and gender dynamics might follow from symbolic attributes, but the symbolic realm is still real and affecting, enough so as to cool off, striate, or short-circuit one's immersion within a hot, smooth, and well functioning medium. Because as soon as Wordsworth recognizes what

¹¹⁹ My thoughts on the “blind beggar” have been guided to a great extent by Anthony Paul Smith's ““Will Nothing Ever Be With Nothing Ever Again?": The Theological Construction of Personhood and Its Negation within the Limits of Race Alone,” Episode 1, podcast audio, *My Name Is My Name w/ APS*, last modified May 8, 2014, originally presented as a keynote address to The New School's New York Phenomenology Research Group, New York, March 4, 2014.

¹²⁰ Similar discussions are happening in Romantic scholarship with respect to, for instance, “machine production” on the way to “commodification” in the eighteenth and nineteenth centuries, as in David Simpson's *Wordsworth, Commodification*, 22. Only in the commodity's permanent form, where everyone appears to share the same thing, is it possible to conceptualize a democratic state founded on the notion that all humans are equal to one another. The problem with “equality” is the consequent “substitutability” of all peoples, and at the extreme end, it is Wordsworth's narrator, who Simpson aligns with Marx's money form and who converts people into things and things into people. On Simpson's preference for “substitutability” over “sympathy” in order to describe the mechanism of identification with which the late eighteenth century must contend, see 61-63, and on the narrator's tendency to convert things without changing himself, see 182.

he is not, he disassociates himself from the throng. As it turns out, the problem with the city is not that it immerses one too much within this frenetic amalgamation, but that it forces the pupil to see himself in the other at the other's expense. Therefore the tools of speculative geometry applied from within London do not merely cut one's "self" off from the "human community." Rather to create distance from the "world," one cuts off someone else.

And yet Wordsworth supplies still another way to distance the mind from the throng of London. The feeling of being a faceless part among interchangeable parts is replaced by the tranquil feeling of a whole. "It is not wholly so to him who looks / In steadiness," says Wordsworth, "who hath among least things / An under-sense of greatest, sees the parts / As parts, but with a feeling of the whole" (7.710-13). His ability to call forth this feeling follows from his "sundry and most widely different modes / Of education," by which he means first and foremost his engagement with the natural landscape of his youth, accompanied by delight (715-6). "Attention," in a more matured form, "comes, / And comprehensiveness and memory, / From early converse with the works of God" (717-19). For instance, the mountain is immobile, grand, and simple in its angles (I mean the peaks, for instance, of Mont Blanc—not until Mandelbrot will the rest of the mountain's shape be understood as nothing but triangles). It somehow fits the mind of Wordsworth, or rather "shapes / The measure and the prospect of the soul / To majesty." If the blind beggar provides a negative according to which Wordsworth orients his thoughts and feelings, the mountain provides the positive: "such virtue have the forms / Perennial of the ancient hills—nor less / The changeful language of their countenances / Gives movement to the thoughts, and multitude, / With order and relation" (726-30). No

doubt Wordsworth takes a geometrical approach to the mind in his concluding passage, but he looks to “natural media” for his models, abstracting from the horizons, blank skies, and mountains. The image of nature that was “upon me here” supplies Wordsworth with a feeling of “enduring life,” “Composure and ennobling harmony,” in contrast to the “meagre lines and colours, and the press / Of self-destroying, transitory things—” (739-41).

In sum, the turn to the “blind beggar” is perhaps more disturbing than the “drowned man of Esthwaite” or the “discharged soldier” scenes for its ethical implications, which Wordsworth covers over through recourse to a figure derived from nature. The natural object in its permanence is prioritized over and above the transience of the blind beggar, despite his negative (and thus focalizing) role among the other substitutable objects. The beggar provides an important step though in Wordsworth’s development of an affective education or a science of feelings: the scene anticipates a later form of reflection in which a reflexive turn is elicited by a negative embedded within a non-human art object. The problem at the present stage is the oppression required: someone must be sacrificed for the sake of reflexive construction. Perhaps Wordsworth recognized this problem, and thereby saw the turn to nature as a way of avoiding the beggar’s reduction to mere means to an end. Based on book 7 alone, it is difficult to say. Something like “The Old Cumberland Beggar” suggests a more affirmative approach. But it can be said that Wordsworth desires a natural medium in which to ground his reflexive turn—why? Something about the medium provides Wordsworth with an image according to which he can anchor himself in the face of the city’s turbulent relations.

The Sublime and the Beautiful: Figures at a Distance

Wordsworth's "The Sublime and the Beautiful" (1811-1812) documents the process of constructing figures from nature and their accompanying feelings.¹²¹ Oddly enough, investigations into Wordsworth's aesthetics tend to neglect the influence of geometry in the essay and the primary text it was meant to accompany, *A Guide through the District of the Lakes* (1810 and onward).¹²² The geometrical aspect is important because Wordsworth refers to Euclid as a model in his attempt to uncover the "relationship" between a human subject and a natural object. In the city the "principle" governing the connections between people and things reduces everything to "identity," where parts are indecipherably substitutable for one another on account of the scale and pace with which they circulate. Outside the city, the sublime and the beautiful supply two different principles, characterized by "difference," and above all, incremental changes over time.

The link between Wordsworth's thoughts on aesthetics and mathematics may have escaped due attention because, in some instances, he critiques quite harshly a geometrical imposition on nature—but not the kind we might think. In the final section of *A Guide through the District of the Lakes*, Wordsworth criticizes architectural structures,

¹²¹ See Owen and Smyser's "Introduction: General" to "A Guide Through the District of the Lakes," in *The Prose Works of William Wordsworth*. 3 vols. (Oxford: Clarendon Press, 1974), 3.123-135, at 131-32.

¹²² Among these studies I include Raimonda Modiano's *Coleridge and the Concept of Nature* (London: Macmillan, 1985), Theresa Kelley's *Wordsworth's Revisionary Aesthetics* (Cambridge: Cambridge University Press, 1988), and Jacqueline Labbe's *Romantic Visualities: Landscape, Gender and Romanticism* (Basingstoke: Macmillan, 1998). While not geometry proper, Kelley (121-22) and Ron Broglio (*Technologies of the Picturesque* 63-72) discuss the prospect view as diagrammed geometrically in the *Guide*.

because they produce geometrical figures in the landscape that that encroach on naturally occurring shapes. According to Wordsworth, prompted by their desire for “order, regularity, and contrivance,” recent settlers and “unpracticed minds” moving to the area tend to build their new homes without respect for “what already exists” among the “variety of forms” of lakes, forests, and mountains.¹²³ Complete with white faces, a prospect view, and grouped together by the half dozen, these new homes “dot the surface” of a mountain and “divide it into triangles, or other mathematical figures, haunting the eye” (217). These mathematical figures do not invite the imagination to participate in their construction: the houses are fixed like diagrams on paper. Furthermore, positioned high on the mountainside with their bright colors, these buildings produce figures that supersede the outline of the mountain, and thus: “the mountain appear[s] to take its beginning, or to rise, from the line of the house, instead of its own natural base.”

Counter to the geometrical figure produced by human structures in the landscape, Wordsworth praises the geometrical form of the natural object, like a mountain, because its lines stir the mind to activity or encourages participation. The mountain is a “stationary object,” but on account of its “individual form,” the long “duration” of its existence, and a “sense of motion which in the mind accompanies the lines” of the mountain, two possible feelings arise in the spectator.¹²⁴ If the lines of the mountain are “abrupt and precipitous,” the viewer thinks of “danger and sudden change,” and thus is filled with a sense of “dread and awe.” While sublime, in this instance the mountain

¹²³ *A Guide* 3.210.

¹²⁴ “The Sublime” 3.351-2.

leaves the viewer with a sense of “fear and degradation” (355). But the mountain’s lines can produce a feeling of equal sublimity and with a more positive outcome if they “flow into each other like the wave of a sea.” In the latter case, the lines produce a feeling within the spectator of “self propagation infinitely continuous and without cognizable beginning.” The mind thus feels a certain “sympathy” and “participation” with this figure.

Moreover, to account for the sublime encounter in terms of a law or a principle, Wordsworth qualifies the spectator’s sympathy and participation with these figures in geometrical terms. To have this sublime feeling in the face of the mountain is analogous to Euclid’s fifth postulate, or “parallel lines in mathematics” (357). Parallel lines illustrate for Wordsworth the “opposition & yet reconciliation” between the mind and the external object because each line is separate and individual, and yet as parallel lines, they are co-constituted. Thereby Wordsworth sees the sublime state as evidence of a communion and unity between mind and nature.

“Unity” or “reconciliation” is felt in terms of “infinity,” which Wordsworth sees as a “modification” of the former. What does it mean to say that infinity is a modification of unity? Owen and Smyser associate these lines with a passage from Kant’s *Critique of Judgment*, that speaks of the sublime object as a shapeless form that produces in the mind a representation of “limitlessness” or infinity, “yet with a super-added thought of totality” (456n). But Wordsworth derives his conclusion from the fact that parallel lines are “infinitely prolonged, [and] can never come nearer to each other” (357). The lines are unified only insofar as they extend infinitely without increasing or decreasing their distance from each other. A pair of line segments could not be substituted for

Wordsworth's analogy because, by definition, nothing necessitates their unity. The only way to guarantee the unity of parallel lines is to extend them indefinitely. Thus Wordsworth attempts to demonstrate in mathematical terms how a sublime feeling follows from a universal law, and by virtue of its universality, the law produces an everlasting affect on the mind.

“Opposition” or “resistance,” is a bit harder to define and requires a rehearsal of the sublime's fundamental elements. These elements are equally important, says Wordsworth, and to remove one is to dissolve the object's sublime effect. The sublime object's “component parts” include individual form, duration of existence, and power (351). Individual form can be understood in terms of a mountain that stands out against the earth (351), the sky (*del.* 352n.), or the encroachment of human structures, as seen above (*Guide* 223). Because the object must be an individual form, it encourages the spectator to think that the object has always already existed. “Contemplated under the notion of duration,” the object only becomes sublime “when the faint sense which we have of its individuality is lost in the general sense of duration belonging to the earth itself” (351). In other words, the object cannot be thought fully in terms of a self-same thing. Rather the object must include within it the idea of its relation to another object, a kind of self-differentiating mechanism. Finally, the object must possess “power,” which can also be understood as action. The object stirs the mind to activity by way of the lines delineating its shape, and because intruding houses or other obstacles can disrupt these lines, the power of the mountain is thus directly linked to its individual form and duration. The mountain or object must resist those objects that would interfere with its

individual form, obscure the duration of its existence, and thus disable its ability to affect the mind.

Only in the last moment does Wordsworth reveal the true definition of resistance as consistent with his analogy of parallel lines: the sublime object must be in a relationship with and must cause some change in the mind of the spectator. The full import of the sublime object's resistance is not its resistance to surrounding objects and the "test of time," but in the parallel between mind and object. If the sublime object imposes its power on the mind and threatens the spectator's sense of moral law, then this power will exceed the mind's resistance leaving the spectator prostrate in a state of dread and awe (354, 356). The mind must therefore secure itself against the imposition of the object, and when it achieves a sense of "absolute triumph," then the "comparing power" of the mind or the act of analysis is "suspended" (356). Then the sublime object is no longer contemplated according to its "parts," its relation to other objects, or the earth, and thus the object appears as an "image of intense unity" (354). Finally resistance gives way to participation and sympathy with the object, likewise producing a feeling of "absolute unity" between mind and image, and hence, opposition and reconciliation (356).

Thus Wordsworth nominates the witnessed object to an image within the mind, as part of the mind's images more generally, but distinguished at an early stage by its accompanying, overwhelming feeling. Indeed, the sublime's initial effect on the viewer blocks the "human forms" that might emerge (i.e. the image of Mont Blanc, book 6); a second, entropic stage subdues the sublime image until it is "contained" as a single and steady figure on which the mind can rely for consistency's sake (i.e. the image of nature that appears in London, book 7). Moreover, the process is a re-presentation of the

structure of the allegory as outlined by de Man: the sublime refers to its negative, creating a temporal void between signifier and signified, until the sublime effect diminishes with the passage of time, at which point the image of the object becomes determined and defined: a “mere” object. Lastly, the sublime encounter as characterized by parallel subject/object positions, collapses into a single mind.

But Wordsworth claims that the sublime object can also become beautiful (349).¹²⁵ The object only becomes beautiful as “we advance in life,” and the “obtrusive” qualities of the object dampen (349). Owen and Smyser compare Wordsworth’s distinction between the sublime and the beautiful with Coleridge’s distinction, where the sublime is contemplated in terms of a whole without parts, and the beautiful is contemplated in terms of parts relating to a whole. Unfortunately, Wordsworth never completed his essay, providing few details with respect to the beautiful. But the *Guide* provides just such a description of a beautiful scene. Wordsworth describes a forest where the trees connect to one another. Not in spite of, but precisely because they have emerged at different times, the trees connect through “sympathy and organization” (220-221). Wordsworth refers to this image as the “beauty of nature.”

Above all, Wordsworth pinpoints in his description of the trees a different “grand constitutional [law],” this time one that determines how a beautiful object “everlastingly affect[s] the mind.” Whereas the sublime required the three criteria of individual form, duration, and power, the beautiful requires a twofold principle: “the liberty that

¹²⁵ The sequence is the reverse for Kant whose dialectic moves from the beautiful to the sublime. Similar distinctions between Kant and Wordsworth are pinpointed throughout in Teresa Kelley’s *Wordsworth’s Revisionary Aesthetics*, 12, 18, 25. And on the dialectic from the beautiful to the sublime, the sequential order is great importance. As Slavoj Žižek claims, in landing on the sublime thing as “a transcendent surplus beyond what can be represented,” Kant determines the sublime from within the “*field of representation*” (*The Sublime Object*, 232). Accordingly, Žižek argues, Hegel responds to Kant, not by operating outside the field of representation, but by doubling down on it: “there is *nothing* beyond phenomenality, beyond the field of representation.”

encourages, and the law that limits.” The principle can also be thought of in terms of movement and time. The trees grow and die each according to its own birth, and yet through their “various colours,” which seem to play together for the eye, the trees appear to form a coherent picture. Where the sublime must be regarded as an object that ultimately overshadows other objects on account of its brute existence, the beautiful takes into account parts giving way to and superseding other parts through a long process of birth and decay. The many parts then participate in (sympathy) and uphold (organization) a coherent whole. For the sublime, individual form, duration, and power implied a relationship of identity, in the end, subordinating parts to the whole. For the beautiful, liberty/growth and limit/death imply a differential relationship that is ongoing, where the whole becomes more than the sum of its parts. Thus, the sublime eventually gives way in its determination to a more flexible figure of change—the beautiful—and thereby reincorporating, not one, but multiple differences, which, lead to parts expanding and contracting, growing and perishing, uniting and breaking, rather like a wave than a mountain.

Indeed, according to Theresa Kelley: “The aesthetic tension that marks these moments suggests a dialectical spiral something like Hegel’s, except that what looks like synthesis in Wordsworth’s aesthetics is more likely to be beautiful, whose suppressions eventually yield to other sublime disruptions. If this tension is dialectical, its penchant for disequilibrium is probably more Blakean than Hegelian.¹²⁶ Kelley’s brilliant synthesis of Wordsworth’s many works allows her to arrive at these conclusions, which the present dissertation almost entirely agrees. Despite the absent discussion of mathematics in her

¹²⁶ *Wordsworth’s Revisionary Aesthetics*, 9.

analysis, we both arrive at a similar explanation of the dynamics of Wordsworth's aesthetics. I only take exception to the fact that the logic to which Wordsworth is responding a) cannot be Hegelian (really, inspired directly by Hegel) and b) is probably not Blakean. Rather, if Wordsworth is responding to, critiquing, or adapting any approach to logic, it is most likely the one with which he has grown up since childhood: Euclid's axiomatic method. While the aesthetic essays would appear to provide all that is necessary for teaching the method in his science of feelings, the question becomes a matter of medium and audience: A new problem arises if Wordsworth is communicating his strange logical principles not to sublime-hunting nature-seekers, but to a poetry-reading public. Moreover, the essays on aesthetics invite the reader to have a sublime encounter "in" nature, albeit at a distance. Can such an encounter be had in nature alone, while books are confined to describing such experiences (and the city to swallowing them up)? Wordsworth counters such a distinction in his firm belief that the medium of poetry and the act of reading can also elicit a reflexive turn and the construction of figures.

Section III: Logic

Chapter 3: Postulate

From the end of the 1790s to *The Excursion*, Wordsworth's poems and essays confirm again and again his antipathy towards logical approaches to nature, human relationships, and moral feelings, which his critics confirm.¹²⁷ In the 1805 *Prelude* he complains in book 7 that "Words follow words, sense seems to follow sense— / What memory and what logic!—till the strain / Transcendent, superhuman as it is, / Grows tedious even in a young man's ear" (540-43). He is not utterly dismissive of logic, but his contempt grows as the practice becomes too strict and linear. Then in book 11 he notes that "syllogistic words / (Some charm of logic, ever within reach)" sever the poet from his heart (78, 82-3). Now Wordsworth indicates that he may also align logic with an older form, the Aristotelian syllogism or Euclidean proposition. The target becomes increasingly specific and topical. In his political essay, *The Convention of Cintra*, Wordsworth singles out Condillac, the French philosophe who applied a deductive, axiomatic approach to moral feelings.¹²⁸ No doubt, Wordsworth had it in mind when he describes moral philosophies that adhere to a "mechanic structure," as the Wanderer outlines in *The Excursion*: "built by rule; / And which, once built, retains a steadfast

¹²⁷ The most important contribution to this view is found in Geoffrey Hartman's *Wordsworth's Poetry: 1787-1814* (New Haven: Yale University Press, 1964). Hartman sees the poet of *Lyrical Ballads* as positioned against anyone who thinks that logic functions as the binding correlative between life and nature as well as human and human (155). More recently, Brad Sullivan, in *Wordsworth and the Composition of Knowledge: Refiguring Relationships Among Minds, Worlds, and Words* (New York: Peter Lang, 2000), esp. 103, believes Newtonian, Cartesian, and Platonic readings have ruled Wordsworth criticism to the detriment of his "ecology of mind," and so he rejects any reading guided by "logic" precisely because he believes such readings have been too influential.

¹²⁸ "The Convention of Cintra," *The Prose Works of William Wordsworth*, 1.332.

shape / And undisturbed proportions.’¹²⁹ For good reason, Wordsworth has been regarded as anti-ratiocination.

Indeed, there was a much larger effort in the late-eighteenth century to depart from the underlying logic of Euclid’s propositions and Aristotle’s syllogisms in literature. Henry Mackenzie addresses the changes to literature’s underlying logic directly in the Introduction to *The Man of Feeling* (1771). The narrator relays the tale of how he acquired the present manuscript from a local curate, who finds it among his predecessor’s belongings. Upon reading it, the curate “could never find the author in one strain for two chapters together: and I don’t believe there’s a single syllogism from beginning to end.’¹³⁰ Ultimately, Mackenzie evinces a tendency among authors to break from logical constraints, and it is this tendency that the Romantics stressed.

But the Romantic departure from logic is more complicated than an outright rejection of propositional form. In fact, the Romantics sought out a different kind of logical method that combined the lessons of Euclid and the new logic of induction, but with additions that were specific to poetry. Perhaps Coleridge put it best in his autobiographical work: “I learnt from him [Rev. James Bowyer], that Poetry, even that of the loftiest, and, seemingly, that of the wildest odes, had a logic of its own, as severe as that of science; and more difficult, because more subtle, more complex and dependent on

¹²⁹ *The Excursion*, ed. Sally Bushell, et. al. (Ithaca: Cornell University Press, 2007), 5.558-69.

¹³⁰ *The Castle of Otranto and The Man of Feeling*, ed. Laura Mandell (New York: Pearson/Longman, 2007), 106.

more, and more fugitive causes.”¹³¹ If Coleridge’s measure of logic was the deductive method, the logic of poetry was exceeding it in terms of creative production.

The strange new methods of Romantic-era writers were not lost on the critics—and in some instances, to great effect. One reviewer documents a collection’s disjunctions, the discontinuity of which actually having a powerful effect on his mind:

Even where the feeling intended to be called forth is of a rich and noble character, such as we may recur to, and feed upon, it may yet be wrought up so gradually, including so many preparatory circumstances of appropriate manners, of local description, of actual events, &c. that the subtle uniting thread will be lost, without a persevering effort toward attention on the part of the reader. Who, that has studied Shakespeare, must not be conscious how often the connection of minute and trifling incidents with the main story has eluded his observation, until after repeated perusals?¹³²

The critic does not refer to feelings that spontaneously correspond with the images in the poems. Instead he refers to feelings that do not occur, at least not immediately, largely on account of the inconsistencies that the poem produces. Its intricate web of connections cannot be grasped simultaneously, and so the poem exceeds the attention’s capacity to follow the narrative faithfully. Only with additional readings does the mind construct what might be termed an affect of reason (Spinoza)—or in Romantic parlance, a sublime feeling finally subdued. Thus it comes as no surprise when another critic commenting on the same work declares that the poems “taught us new sympathies,” as if the discontinuities of these poems had the power to elicit feelings that had no prior

¹³¹ *Biographia Literaria or Biographical Sketches of My Literary Life and Opinions*, in *The Collected Works of Samuel Taylor Coleridge*, ed. James Engell and W. Jackson Bate (Princeton: Princeton University Press, 1983), 1.9.

¹³² John Stoddart, “Art. VI. *Lyrical Ballads, with other Poems: in Two Vols.*,” first appearing in the *British Critic* XVII (Feb. 1801), 125-131, in Donald H. Reiman, ed. *The Romantics Reviewed: Contemporary Reviews of British Romantic Writers* (New York: Garland Publishing, 1972), 131-134.

appearance.¹³³ As the undergirding logic of geometry once had the power to elicit figures from the mind, the poem, it could be argued, was supplanting geometry as a medium and a *techne* in terms of its power to elicit feelings. And of course, the poems that these critics were referring to are those collected in Wordsworth's *Lyrical Ballads*.

Thus, the chief aim of *Lyrical Ballads* is to present a new logical method, but one that directly affects the ordered thoughts and feelings of the reader. Wordsworth's purpose marks a serious departure from classical notions about affecting audiences. The text no longer prescribes appropriate, corresponding feelings, as in Greek drama where discovery and catharsis on stage is proportionate to the audience's catharsis off stage. Wordsworth wants to diffuse such an easy conformity. Rather he embeds logical "acts" within his poetry, sometimes through direct address, sometimes through metrical arrangement, and sometimes through both, thereby compressing disjunction and an auxiliary bridge within the object. Wordsworth exports the mechanism according to which the mind pivots in its turn towards the other. He re-locates the fulcrum of reflexivity in the poem/object. The inconsistencies of the poem overwhelm the "fitness" of previously held thoughts and feelings, and produce gaps in the consistency of the mind's logical connections. In response the mind commits a reflexive act so as to recuperate a sense of logical coherence but commits this act according to (or starting from) the logical break. Because the "ground" of this logical act is none other than the gap that the poem "communicates," any new thought or feeling follows necessarily *ex nihilo*.

¹³³ "New sympathies" refers to *Lyrical Ballads* but appears in James Montgomery's review of Wordsworth's "Poems. In Two Volumes," in the *Eclectic Review*, IV (January 1808): 35-43, in Reiman, *The Romantics Reviewed*, 333-337.

Accordingly, *Lyrical Ballads* marks a point of distinction in the history of what Kenneth Burke called the “propositional form.” He argued that the “ratiocination” of Poe is no different than a “demonstration” in Euclid.¹³⁴ Burke’s claim has been challenged since, but only for the sake of maintaining the status quo.¹³⁵ The problem is not the claim that a “propositional form” exists in the realm of poetry; rather at issue is identifying it resolutely with Euclid, whose propositions and arrangements were being revised by mainstream philosophers and mathematicians before and after the eighteenth century. Really, the poems of *Lyrical Ballads* need to be understood according to their own propositional form, but balanced in the measure of their predecessors and contemporaries.

What remains unclear is why Romantic-era writers reacted to Euclid’s axiomatic method as they did, especially because the consistency of Euclid’s approach raised him to the measure of truth according to which all other bodies of knowledge were judged—well into the nineteenth and early twentieth century.¹³⁶ The answer goes back to Locke’s

¹³⁴ Burke, in *Counter-Statement* (New York: Harcourt, 1931), 156-232, 157, says, “We call [the form] syllogistic because, given certain things, certain things must follow, the premises forcing the conclusion.” Burke is one of many examples of modern literary critics who confuse the syllogism developed by Aristotle with the propositions of Euclid. And because Euclid’s propositions exerted far greater influence on mid-eighteenth century and Romantic generations than Aristotle’s syllogisms, I will say “propositional form” rather than use Burke’s “syllogistic form.”

¹³⁵ I select one critic in particular because his essay was first presented at a conference with Burke present in the audience and was subsequently published in 1966 and 1975. Wilbur Samuel Howell argues, in “Burke’s Lexicon Rhetoricae,” *Poetics, Rhetoric, and Logic: Studies in the Basic Disciplines of Criticism* (Ithaca: Cornell University Press, 1975), that Burke has unified poetry and rhetoric to the point where nothing remained to discriminate these two domains. For Howell, rhetoric’s main distinction is that there is a one-to-one ratio between reality and rhetorical utterance, regardless if it follows from historical, biographical, or scientific discourses. And while it is not out of bounds for poetry to also say something valid about reality, Howell reasons that poetry’s main distinction is its attempt to say something about reality by directing the audience to something other than reality, namely the poet’s personal imagination.

¹³⁶ See the opening pages of Joan Richards’ *Mathematical Visions: The Pursuit of Geometry in Victorian England* (Boston: Academic Press, 1988), 1-2. And consider that Einstein still felt the need in *Relativity* (1916) to open by disputing the relevance of Euclidean geometry.

arguments against the deductive logical method exemplified by Euclid. What exactly did Locke argue, and why did Wordsworth need to take up this debate over a century later? How did Wordsworth arrive at the solution that he does, and how did he actually enact this solution in his poems?

Critique of the Old Logic

Having read various accounts of different cultures from around the world, John Locke struggled to accept the inherited logic, contending that such a deductive system could not adequately accommodate the diversity of human morals.¹³⁷ The manners and virtues were so various that they called into question the possibility of any innate ideas, maxims, or axioms. As a consequence, any syllogism or proposition following from innate ideas to moral feelings would also seem specious. No doubt, indemonstrable principles and their accompanying syllogisms made for excellent teaching tools, but once learned these demonstrations were easily taken for granted as having been known all along. Hence Locke sees the need in *An Essay Concerning Human Understanding* (and *The Conduct of the Understanding*) to critique the old norms of logic.¹³⁸

¹³⁷ *An Essay Concerning Human Understanding*, 1.3.72.

¹³⁸ Wilbur Samuel Howell, in *Eighteenth-Century British Logic and Rhetoric* (Princeton: Princeton University Press, 1971), 259-60, identifies seven traits of logic that were overturned in the transition from the seventeenth century to the late eighteenth century. Seventeenth century logic was understood as a method of inquiry or investigation and communication. Axioms made up the subject matter, and the aim was to test these axioms through deductive analysis. The primary instrument for testing these axioms was the syllogism, or a set of premises that lead necessarily to a conclusion. One of the seventeenth century's self-evident principles was the Aristotelian *dictum de omni et nullo* (whatever can be affirmed or denied of a kind can be affirmed or denied of a sub-kind). Disputation was regarded as the primary medium through which inquiry and communication of ideas could be practiced. Topics were regarded as the machinery for subjecting questions to systematic investigation and presenting the results of that investigation. And consistency of logic and truth were held as equivalent.

For Locke, the problem with the syllogism is twofold. He admits that it aids us in illustrating how premises link to conclusions in a particular instance, “but in this, it is of no great use, since the Mind can perceive such Connexion where it really is, as easily, nay, perhaps, better without it.”¹³⁹ The main reason why the premises seem to necessarily lead to the conclusion is the medium of the syllogism; it encourages readers to “believ[e]” the connection, despite those links still “not being certain.”¹⁴⁰ Instead Locke promotes a kind of everyday reasoning. In an image that anticipates a slew of Wordsworthian encounters, Locke suggests that if someone were to tell a woman in the country that the wind was coming in from the southwest and that the weather was low, she would come to the conclusion that traveling outdoors without a heavy coat, especially after a fever, would probably make her ill. And if the sequence of events and their consequences were spelled out in syllogistic form, it would only muddle the connections between things, events, and consequences. In conclusion to his first critique against the syllogism, Locke argues that even “in mathematical Demonstrations, that the Knowledge gained thereby, comes shortest and clearest without Syllogism.”¹⁴¹ Not only is the old form inadequate for explaining everyday connections, but it also becomes cumbersome in the realm of mathematics, namely geometry.

Locke extends this line of thought, explaining that syllogisms provide little aid in terms of discovery. For example: “The 47th. Proposition of the First Book of *Euclid* is very true; but the discovery of it, I think, not owing to any Rules of common Logick.” To

¹³⁹ *Ibid.*, 4.17.670.

¹⁴⁰ *Ibid.* 671.

¹⁴¹ *Ibid.* 672.

be sure, the syllogism is much better at presenting knowledge already in possession, rather than pushing the intellect into unknown territory. But moreover it is in the discovery of ideas that make clear “the connexion of distant [ideas], that our stock of Knowledge is increased, and that useful Arts and Sciences are advanced.”¹⁴² The syllogism restricts the connection of things to their effects and fails to show how initially something like a fever follows from the wind, or how the Pythagorean theorem follows from a point. The syllogism is only the final product of learning and not the means by which learning occurs.

Closely linked to the critique of syllogistic form is Locke’s critique of axioms. The axiomatic method and the syllogistic form were often confused because they are both step-by-step processes. Axiomatic propositions differ from syllogisms though, in that they begin with first principles, including definitions, postulates, and axioms.¹⁴³ Such fundamental principles certainly carry with them a degree of power. For example, Sir Isaac Newton’s *Principia* begins with self-evident truths, as if the world were built on a few givens. Perhaps beginning with such self-same axioms makes it easier to follow how a proposition is proved, and it makes teaching propositions to students easier for the instructor (or at least this was one perspective). But again, these axioms teach the student nothing about the acquisition of new truths:

Would those who have this Traditional Admiration of these Propositions, that they think no Step can be made in Knowledge without the support of an *Axiom*, no Stone laid in the building of the Sciences without a general *Maxim*, but distinguish between the Method of acquiring Knowledge, and

¹⁴² *Ibid.*, 679.

¹⁴³ Howard Eves and Carroll V. Newsom, *An Introduction to the Foundations and Fundamental Concepts of Mathematics* (New York: Holt, Rinehart and Winston, 1965), 37. For more thoroughgoing definitions of these terms see Proclus, 63-4, and the first volume of Heath’s *Euclid’s Elements*.

of communicating it; between the Method of raising any Science, and that of teaching it to others as far as it is advanced, they would see that those general *Maxims* were not the Foundations on which the first Discoverers raised their admirable Structures, nor the Keys that unlocked and opened those Secrets of Knowledge.¹⁴⁴

Beginning with axioms from which propositions follow necessarily may aid students in their attempts to understand how something like geometry can guarantee its results with certainty. But the student never learns how axioms are acquired in the first place. The axioms must be taken for granted and followed, rather than questioned and expanded.

John Locke's critique of the old logic eventually captured a wide audience but the effect was not immediate. The transition from geometry to analysis or from deduction to induction accelerated dramatically in the 1740s, beginning with the publication of Thomas Reid's "A Brief Account of Aristotle's Logic with Remarks" (1744) followed by George Campbell's *The Philosophy of Rhetoric* (1776) and Dugald Stewart's lectures at Edinburgh in the 1780s.¹⁴⁵ But even in this last instance, the enthusiasm for induction actually caused the progress in logic to slow down. Wilbur Samuel Howell laments that Dugald Stewart failed to reinforce deduction's relevance despite the successes of the new logic. He may have provided logic since Bacon and Locke with its "fullest, its most perceptive, and its most brilliant eighteenth century statement in Britain," but "Had Stewart applied this geometrical thinking to logic as a whole, he would have seen not only that the new logic needed to be inductive in order to supply what the old logic had lacked, but also that the new logic needed to retain the syllogism in order to preserve

¹⁴⁴ *An Essay Concerning Human Understanding*, 4.7.599.

¹⁴⁵ Howell, *Eighteenth-Century British Logic and Rhetoric*, 262-3.

what induction could not supply on its own,” which is, “accuracy and consistency.”¹⁴⁶

Prior to Stewart, David Hume found himself in a similar predicament, and according to Gaukroger, “the solution to this does not lie in renouncing abstract, systematic reasoning, for to do so would be to ‘cut off entirely all science and philosophy’ and would ‘subvert entirely the human understanding.’ Hume is able to offer no solution to this dilemma.”¹⁴⁷

In other words, after Locke in England, induction wins the important battles in the world of logic and moral science, but sacrifices the gains the deductive method had provided the philosophy of mind. What was needed was a way to fuse an intellectual system with the empirical collection of sense content. Certainly Wordsworth’s method is an attempt at this fusion, but was he the first? Over a century separates Wordsworth from Locke—what was the role of logic in poetry during these intervening years?

The Logic of Poetry in Transition

Despite the backlash against syllogistic arrangements and axioms, these two characteristics make up the most enduring “family resemblances” tying together the old logic and eighteenth century poetry. Because their structures and foundations make up the intersections between logic and poetry, any differences in these two areas will reveal much more about how these two disciplines departed from each other and the significance of those departures. But first, what was the connection between logic and poetry?

¹⁴⁶ *Ibid.*, 437.

¹⁴⁷ *The Collapse of Mechanism and the Rise of Sensibility*, 443.

Alexander Smith writes in “The Philosophy of Poetry” (1835), that in prose, “the main purpose of the writer or speaker is to inform, or exhibit truth [...] In poetry, on the other hand, the information furnished is merely subsidiary to the conveyance of the emotion.” Accordingly, comments M.H. Abrams, “poetry is properly non-propositional, and its assertional truth or falsity is not a relevant consideration.”¹⁴⁸ That was only a half-truth for Smith’s and Abrams’ eighteenth-century predecessors. James Harris writes in *Hermes*, “Though logic may subsist without rhetoric or poetry, yet so necessary to these last is a sound and correct logic, that without it they are no better than warbling trifles” (a line repeated by Lord Kames).¹⁴⁹ Edward Young remarked on the authority of poetry with respect to established schools of logic. Illustrating the “[dwarf]-understandings” of men, Young argues that readers without an imagination cannot bear the sight of objects that resist their ideologically set patterns of sight. On account of this blindness, they miss that Pindar “has as much logic at bottom as Aristotle and Euclid.” While Young’s chief aim is to attack the critic who cannot appreciate what he fails to understand, his aside regarding Pindar is striking; it would later be reproduced in Samuel Johnson’s biography of Young in *The Works of the English Poets*, and it certainly caught the attention of a young Coleridge.¹⁵⁰ But was it true? Could Pindar offer a concrete example of the poet-logician? Rather than answer this question by turning directly to Pindar, it might be more

¹⁴⁸ The essay originally appeared in the December issue of *Blackwood’s Magazine*. See Abrams *Mirror and the Lamp: Romantic Theory and the Critical Tradition* (New York: Norton, 1953), 322; for Abrams’s editorial history of Smith, 149.

¹⁴⁹ *Hermes; Or a Philosophical Inquiry Concerning Universal Grammar* (1751; John Nourse, 1765), 6. *Eighteenth Century Collections Online* (ECCO). Gale Group. Kames, *Elements of Criticism*, 1.7.

¹⁵⁰ See the letter “To William Sotheby 10 Sept 1802,” in *The Collected Letters of Samuel Taylor Coleridge*, ed. Earl Leslie Griggs (Oxford: Clarendon Press, 1959), 2.864.

useful to take Young at his word by focusing on Pindar's imitators leading up to the Romantic stage.

Chronologically, Abraham Cowley is worth investigating first because he is largely credited with inaugurating the "philosophical ode," in which lofty concepts such as Liberty or Nature are prioritized, prefiguring the "looser" Romantic odes of Coleridge and Wordsworth. Cowley's early odes are important because they begin with definitions, just like any work following from Euclid's axiomatic method. In poems like "Life and Fame" and "Mr. Cowley's Book presenting itself to the University Library of *Oxford*," the poet begins with apostrophes, defining his meaning of life and the library ("Learning's Pantheon") respectively, before deducing from this general definition particular examples.¹⁵¹ Cowley recognizes that his selected form is not exactly typical of poetry overall, and for these reasons he hopes he will be elected to share a link among the chain of texts in the Bodleian Library, despite his "Pindarick liberty" (35).

Cowley is less self-deprecating with respect to his poetic license in the following decades, taking greater advantage of what Stella Revard refers to as the "so-called digressive liberties of the Pindaric Ode," in his aptly titled, "Upon Liberty."¹⁵² These later Pindarics deserve special attention because Cowley mixed them alongside with his familiar essays. While Revard sees the odes as extensions of the prose essays, it is also worth considering the flexibility of Cowley's logical method. He feels comfortable

¹⁵¹ *The Poetical Works of Abraham Cowley in Four Volumes. From the Text of Dr. Sprat, &c. With the Life of the Author* (Edinburgh, 1777), 2.1. *Eighteenth Century Collections Online* (ECCO). Gale Group.

¹⁵² For an exploration of Cowley's Pindaric odes in relation to his predecessors and successors see Stella P. Revard's *Pindar and the Renaissance Hymn-Ode: 1450-1700* (Tempe: Arizona Center for Medieval and Renaissance Studies, 2001), 319-34, at 323.

transferring the ode into an unfamiliar genre, almost as if the “so-called digressive” behavior of a Pindaric ode is not restricted to theme or example alone. Rather the disjunctions—and yet the implied connections—can be found between separate stanzas as well as different crafts: poetry and prose. In other words, Cowley recognized the possibility for the logical traffic between different registers.

The most significant eighteenth-century Pindarics for Wordsworth were those of Thomas Gray and William Collins.¹⁵³ Gray represents an important turn away from the old logic in poetry. Firstly he departs from Cowley’s tendency to begin with definitions from which he deduces examples. Instead, following the mid-century turn towards natural history, Gray begins “The Progress of Poesy” (1757) with the early origins of poetry from which he charts its emergence around the globe, finding instances among aboriginal cultures before coming into maturity with Shakespeare, Milton, and Dryden. Gray uses a traditional form of ode, with three sections each comprised of triads (strophe, antistrophe, and epode), with the final section turning towards himself in hopes that he too might be included among the great poets. Gray’s wish is not entirely self-serving as he also laments the loss of any great vehicle for poetry since the last century. The logical order thus runs from the origins of poetry, to the maturing of poetry, to its lost spirit, and the speaker’s hope to recuperate from this loss. The ode is syllogistic and deductive, moving from a general beginning to particular examples, but it now ends with self-reflection, self-consciously drawing attention to the speaker. Coincident with this final move is the speaker’s melancholic feeling represented at the end. Following from a new understanding that a more personal kind of elegy turns towards nature and communicates

¹⁵³ To cover both poets would require too much room in this already over-extended background story. But more importantly, Wordsworth cites Gray in his Preface to *Lyrical Ballads*, so he may have occupied more of the poet’s attention during the timeframe under investigation here.

the affections that arise from this lost correspondence, Gray incorporates this elegiac convention into his Ode, concluding his dialectic on the progress of poetry with a feeling.¹⁵⁴

The inclusion of a feeling at the end of Gray's logical progression is in alignment with a growing belief from the 1740s onward that any propositional (syllogistic or axiomatic) approach to understanding humanity's relationship to reality would likely require sensibility to play a role.¹⁵⁵ Gray could have ended his narrative by outlining the current state of poetry by listing the greatest selling works, his favorite poets, or in a fashion resembling Pope's *The Dunciad*, his least favorite poets. Instead, he opens up his history of poetry by concluding with a present feeling that has emerged from the somewhat more flowery facts of the past.

But Gray only represents a feeling that follows from the logical "progression" of history and it is therefore contained within this history, making the feeling part of the logical syllogism, the conclusion following from the premises. Gray never attempts to discover anything beyond the confines of the poem itself. The feeling is still only part of the product of our learning rather than a means to invention. The closest Gray comes to extending beyond this tautological restriction is when he experiments with the meter of his Pindarics, but even here he worries that the structure is too complicated. The proverbial heart of Gray's experimental meter is in the right place, as he wants to elicit a surprise connection where one did not appear to exist. But too much space separates the

¹⁵⁴ Shenstone, "A Prefatory Essay on Elegy," in *The Works, in Verse and Prose of William Shenstone, Esq.*, 3 vols. (London: J. Dodsley, 1777), 1.23-4. *Eighteenth Century Collections Online* (ECCO). Gale Group.

¹⁵⁵ Gaukroger, *The Collapse of Mechanism* 4, and see the final chapter, "Historical Understanding and the Human Condition," 420-52.

lines of the same meter, obscuring the connections between different parts of the whole.¹⁵⁶ At bottom, Gray's innovation only challenges the reader to attend more carefully to how all the parts of the poem correspond with some other part in terms of meter: a matching game within an enclosed system. Despite this setback, such innovations in meter or the code of poetry will come to play an important role in the development of poetry's own logical method, an additional dimension not available to Euclidean geometry and axiomatic logic.

On account of Gray's efforts the Romantic period inherits a kind of propositional sensibility, an interesting blend of logic and feeling—but not yet fully developed. The poets make a considerable leap forward in terms of thinking about what a poem is and what it can do, especially as a consequence of dropping definitions at the opening of the poem and including a feeling at the end. But if Gray's speculative origins and the poem's self-enclosed form fail to produce a thought or feeling outside of what the poem already re-presents, then perhaps placing greater emphasis on other parts of the axiomatic method might open the poem to the possibility of invention outside itself.

The Priority of the Postulate

[In] the new philosophic movement that toward the end of the eighteenth century began to seek its foundations in moral and aesthetic concerns, no notion was more crucial than that of the 'postulate.'

—Elinor Shaffer¹⁵⁷

¹⁵⁶ See John Butt, *The Mid-Eighteenth Century*, ed. Geoffrey Carnall, vol. 8 of *Oxford History of English Literature* (Oxford: Clarendon Press, 1979), 72-82, at 74.

¹⁵⁷ "The 'Postulate in Philosophy' in the 'Biographia Literaria,'" *Comparative Literature Studies* 7.3 (1970): 297-313, at 298.

As the eighteenth-century satisfaction with “first principles” decreased, philosophers, scientists, and poets grew increasingly interested in the role of the “postulate.”¹⁵⁸ But why trade in one “first principle” for another? What distinguishes the first principles from one another was a topic of debate even before Euclid, but the best source for their various meanings remains Proclus’ commentary on the first book of Euclid’s *Elements*. Postulates and axioms differ from definitions because they say something about the “existence” of the things they describe, a line, for instance. Axioms differ from postulates because they are immediately known or understood, “such as fire is hot” (142). Because the postulate’s truth is not easily taken for granted, they require the construction of a figure (143). While ultimately accepting the postulate as true, the student resists accepting this statement because it is not as self-evident as “fire is hot.” The fact that the postulate must be constructed implies a breach of purely rational and sensible domains. In ancient Greece, this breach was not taken lightly and caused serious debates, and it is within the text of Euclid’s *Elements* that this debate continued into the modern age.

According to Proclus, there were two opposing views with respect to the postulates prior to Euclid’s *Elements*. Menaechmus’ school of mathematics espoused a *poiētic* view of geometry, in which eternal are “produced” but only as “intelligible matter.” On the other side of the debate was Plato’s nephew, Speusippus, and the now

¹⁵⁸ On Sir Isaac Newton’s turn to postulates, see Katherine Dunlop, “What Geometry Postulates: Newton and Barrow on the Relationship of Mathematics to Nature,” in *Interpreting Newton: Critical Essays*, ed. Andrew Janiak and Eric Schliesser (Cambridge: Cambridge University Press, 2012), 69-101. Dunlop uncovers an important link in the history I am charting here, and will be more explicitly incorporated in an expanded edition of the present work.

unknown Amphinomous, who espoused a strictly theoretical view of geometry.¹⁵⁹ Within the strictly theoretical view, all propositions are theorems, even the problems, which amounts to the belief that there is no practical or extensive dimension to geometry, and as a science, geometry belongs to a purely rational domain. According to David Lachterman's genealogy of modernity, Euclid was not a radical within these philosophical debates.¹⁶⁰ Rather the *Elements* appeals to mathematicians and philosophers who see a creative role in geometry (often associated with the divine fiat), and those who staunchly reject this role, the theoretical school. By including the Latinate fiat within the opening postulates and 51 of the 456 propositions Euclid compromises between the two extreme views. Thus the *Elements* established—being the first printed mathematical text—the precedence for geometry as a poetic or productive science. Nevertheless, Lachterman and others agree that during the age of Euclid, despite the need to physically draw geometrical diagrams for the sake of learning, the aim was only to illustrate how accidental variations in drawings had no bearing on the geometrical figure itself.¹⁶¹ These drawings then, did not create or bring the geometrical constructions into existence, “but instead evoke[d] or allow[ed] it to make its intelligible presence ‘felt’” (121).

Eighteenth century mathematicians translating Euclid took a less poetic approach to the postulates. In England, Euclid was likely in circulation in one form or another as

¹⁵⁹ See Proclus, *A Commentary*, 63-4.

¹⁶⁰ Lachterman, *The Ethics of Geometry*, 65-7.

¹⁶¹ Magnani, *Philosophy and Geometry*, 95.

early as the tenth century, according to Heath.¹⁶² The oldest English translation of Euclid dates back to 1570, still attributing the work, erroneously, to Euclid of Megara (109). In the eighteenth century, standard English editions of Euclid began to circulate. Robert Simson's English edition of the *Elements* (1756) is taken from the Latin translation of Commandinus (1572), which followed the Greek text more faithfully than other Latin translations (Heath 104-5). Simson's *Elements* went through over thirty editions by the mid-nineteenth century (ten editions by 1799). It served also as the model for many other English editions, which specify: "chiefly after the text of Simson."¹⁶³ From the earliest to the latest editions, Simson's translation of the postulates remained committed to the Latinate style: "Let it be granted that a straight line may be drawn from any one point to any other point" (13). Given the ubiquity of this translation, it is very likely that Wordsworth encountered it in grammar school.

But in 1776, a small shift occurs with big consequences. George Douglas made the case in his Preface to the *Elements* that the "scientific writer" should speak in the most "simple and perspicuous manner."¹⁶⁴ Douglas is not alone in his opinion. Four out of ten different versions of the *Elements* from 1705-1795, each of which run numerous editions throughout the century, replaced "let it be granted that" with the terse, "grant that a line may be drawn."¹⁶⁵ The change follows a tendency away from the poetic "let" and

¹⁶² Sir Thomas L. Heath, "Introduction," *The Thirteen Books of the Elements* (New York: Dover, 1956), 1.95.

¹⁶³ Although elsewhere, Heath singles out Simson's text as leaving "much to be desired" (8n.2). For the above information, see 104 and 111.

¹⁶⁴ *The Elements of Euclid in which the Propositions are demonstrated in a new and shorter Manner than in former Translations, and the Arrangement of many of them altered* (Edinburgh: n.p., 1776), vii. *Eighteenth Century Collections Online* (ECCO). Gale Group.

towards the strictly theoretical rhetoric, avoiding the fiat altogether. In both cases it is assumed that the construction has already been completed, either by a tutor or Euclid himself, but by eliminating “let,” any mistaken association between the existence of a line and a first line drawn by God is officially removed.¹⁶⁶ With the shift in the language of the postulate mathematics and science more generally seek to remove any metaphysical references.

By severing the postulate from the word of God, Euclid’s translators re-located the “ground” of construction to an earthly plane. The postulate’s point of origin no longer belongs to “pre-history,” to God, or to a purely intellectual (Platonic) domain. The rhetorical shift foregrounds the act of construction. Geometrical figures no longer “pass” from a metaphysical to a physical realm. And the “location” from which a postulate issues does in fact change over time. Mathematicians locate the inaugural point of the postulate in the “here and now,” constructed at some point in time, but not before time, as such. Accordingly, the new translations of Euclid refrained from encouraging the invention of anything new—the line has (still) always already been made.

¹⁶⁵ Because the adaptations under investigation here take place in the eighteenth century, I have excluded from my count any edition prior to 1700. Heath only considers seven of these ten editions to be the “most noteworthy,” and there are still more editions to consider (96). Heath’s bibliography of Euclid’s *Elements* is extensive but selective. For a bibliography of editions from between 1482 and 1600 (with colored plates) see Charles Thomas-Stanford, *Early Editions of Euclid’s Elements* (London: The Bibliography Society, 1926). Heath refers readers also to Pietro Riccardi’s bibliography of 1887-93 (96), but Thomas-Stanford characterizes it as “not very helpful” (2). I have yet to locate a copy of P.J. Wallis, *A Checklist of British Euclids up to 1850* (1967).

¹⁶⁶ In many respects, Lachterman’s whole study rests upon the implication that Euclid’s commands have already been fulfilled, and for the Ancient Greeks, it would have been understood that Euclid or a tutor and not a god fulfilled them. When he turns to Descartes and the moderns, Lachterman’s main object is to demonstrate the rise of a “character” (hence the “ethics” of geometry) among philosophers that sought to disguise sources, backgrounds, or history. A parallel development of this character can be found in literature. Marshall Brown, in “Romanticism and Enlightenment,” *Turning Points: Essays in the History of Cultural Expression* (Stanford: Stanford University Press, 1997), 195-219, esp. 215-17, outlines from Defoe to Austen and Scott the emergence of a more self-conscious hero that synthesizes past and present.

Thus the new translations of the postulate actually deflated any power that it once possessed as a rhetorical device. When not constructed by God, the postulate appears now to be given, and should be simply accepted. It becomes indistinguishable from an axiom.

In Germany a more poetic approach was being taken towards the postulate. Lachterman locates the major differences between ancient and modern mathematics in “a transfiguration of a theoretical into a productive or *poiētic science*” (26). The ontological status of “mathematics” depended on the human capacity “to bring them, or at least their vicarious instances, into being in a sensuously recognizable way” (110). For modern scientists and philosophers like Lambert and Kant, in order for purely rational or a priori mathematical things to have any existence at all, some connection, however vicarious, must exist between a thought and its production. The mathematical thing’s production is its “certification of existence” (52), and the action in which thought becomes being in mathematics is none other than the postulate.

Indeed, for Fichte, the postulate is a first principle in which the student is “invited to act” in “the conscious intuiting [of the student’s] own I,” or Ego.¹⁶⁷ Fichte’s and Schelling’s variations on the postulate as an “act” had their influence on Coleridge, as well.¹⁶⁸ Translating large passages from Schelling for his *Biographia Literaria*, Coleridge

¹⁶⁷ For my understanding of geometry’s role in Fichte’s philosophy I am indebted to David W. Wood’s excellent study, *Mathesis of the Mind: A Study of Fichte’s Wissenschaftslehre and Geometry*, Fichte-Studien-Supplementa 29 (New York: Rodopi, 2012), 134ff., which discusses Fichte’s stress on the postulate in far more detail than my task can allow for here.

¹⁶⁸ See Coleridge’s letter to J.H. Green 13 Dec. 1817: “he [Fichte] has the merit of having prepared the ground for, and laid the first stone of, the *Dynamic Philosophy* by the substitution of Act for Thing, der einfachen Actionen statt der Dinge in sich,” in *The Collected Letters of Samuel Taylor Coleridge*, 4.792.

begins the discussion of the postulate with the discipline of mathematics¹⁶⁹: “geometry supplies philosophy with the example of a primary intuition, from which every science that lays claim to *evidence* must take its commencement.”¹⁷⁰ Geometry provides first principles, and in addition, it can demonstrate its propositions with certainty. But for Coleridge, the geometrical postulate is subordinated to the philosophical act because the latter is grounded simultaneously in practical and theoretical intuition (252). He wants a postulate that is moral/sensible and logical.

Is not the postulate for Coleridge the juncture between logic and sublime aesthetics? No doubt, the philosophical postulate is a mental bridge to reason, understanding, morals, and “Being altogether,” and is exemplified in the famous words from Delphi: “KNOW THYSELF!” As the inaugurating command of the philosophical mind, according to Coleridge, the postulate is a reflexive act according to which the un-self-conscious pupil becomes conscious of himself. It is the turn according to which one

¹⁶⁹ Schelling’s *Abhandlungen zur Erläuterung des Idealismus der Wissenschaftslehre* (*Essays in Explanation of the Idealism of the Doctrine of Science* [1799]). Focusing on the postulate as it appears in chapter twelve of *Biographia Literaria*, Elinor Shaffer claims that by 1815 Coleridge was unwilling to embrace any philosophical concept that might jeopardize the relationship between “systems based on reason and systems based on aesthetic or moral interest” (299). Schelling asserts that philosophy postulates itself and reaches a final state in the artwork, and thereby philosophy becomes an aesthetic activity (306). At this stage, Schelling’s adaptation of philosophy simultaneously excited and repelled Coleridge because it raised the status of the artwork, but subordinated reason to an aesthetic and moral domain. To eliminate the divide between rational and aesthetic-moral realms is to admit the truth of every would-be artist’s final product. But by the time of *The Friend* (1818), Coleridge comes to terms with Schelling’s position, declaring that all “speculative Truths” begin with a postulate (“even the Truths of Geometry”), and such acts are rather of “the Will” or “moral being” than of reason, in *The Collected Works of Samuel Taylor Coleridge*, ed. Barbara E. Rooke, 16 vols. (Princeton: Princeton UP, 1990), 115, vol. 4.1. On Coleridge’s religious extension of the postulate see James Engell, “Coleridge and German Idealism: First Postulates, Final Causes,” *The Coleridge Connection: Essays for Thomas McFarland*, ed. Richard Gravil and Molly Lefebure (London: Macmillan Press, 1990), 153-77. Also see Murray J. Evans, “Coleridge as Thinker: *Logic and Opus Maximum*,” *The Oxford Handbook to Samuel Taylor Coleridge*, ed. Frederick Burwick (Oxford: Oxford University Press, 2009), 323-341.

¹⁷⁰ *Biographia Literaria*, 1.250.

transitions from a fragmented self, of disjointed senses, thoughts, and feelings, to a self, coherent and “whole.”

The problem is that Coleridge and his German counterparts produced a theory of the postulate through philosophy, but philosophy as a medium does not offer a means of enacting the postulate in a way that could achieve the aims of its advocates. If the proof of the moral-mathematical thing is in its construction, then the postulate must be executed rather than only described. Fichte, Schelling, and (the later) Coleridge could only write about the function of the postulate and what it ought to accomplish for the pupil. To actually enact a postulate, a participatory medium was required.

Nothing Personal: The Deictic Postulate in “Tintern Abbey”

“When I affirm that [a] tree grows on a given spot and that it is an oak, and my companion being doubtful of the fact I take him to the spot and show him the object, this is [deixis], *monstratio*, and evidence of the senses, but it involves no proof that the contrary was [im]possible, it is not *apodictic*, not *demonstrative* [...] The evidence here is rather moral than logical.”¹⁷¹

—Samuel Taylor Coleridge

Critics have already recognized “Lines Written a Few Miles Above Tintern Abbey, On Revising the Banks of the Wye During a Tour, July 13, 1798” (“Tintern Abbey”) for its engagement with logic, but they have focused almost exclusively on the “formal” aspects of the poem, primarily its transitions.¹⁷² More importantly, Wordsworth

¹⁷¹ *Logic*, ed. J.R. Jackson in *The Collected Works of Samuel Taylor Coleridge* (Princeton: Princeton University Press, 1981), 202.

¹⁷² Most recently, H.J. Jackson, in “Coleridge’s Lessons in Transition: The ‘Logic’ of the ‘Wildest Odes,’” in *Lessons of Romanticism: A Critical Companion*, ed. Thomas Pfau and Robert Gleckner

makes explicit in the poem the importance of the postulate by way of an everyday act. Modifying the affective postulate that inaugurates a feeling consciousness (between mother and child), Wordsworth rather enacts smaller postulates that link an absence in the mind to a particular time and place in the poet's life.¹⁷³ He thereby confirms Kenneth Burke's claim that in the modern age, science eliminates the Latinate fiat from its postulates and thus substitutes little commands for big ones, "quite as modern poetry has replaced the 'big spell' with a lot of 'little spells.'"¹⁷⁴ These little spells/acts provide a logical starting place in a proposition that is somewhat arbitrary but at the same time they demystify the indemonstrable givens of Euclid's first principles.

(Durham: Duke University Press, 1998), discusses briefly the "transitions" in "Tintern Abbey," which probably did not refer to transitions from one note to the next, as in music, because the meaning would be too technical, nor did they refer to "*transitio* or *metabasis*, that figure of rhetoric that explicitly signals the passing from one subject to another." Rather, according to Jackson, "the consensus among commentators is that what Wordsworth was referring to had something to do with sequence of ideas in the poem, and in this conclusion we are supported both by common usage of the period and by the language of standard and representative guides." Jackson then suggests that the model ode for the Romantics was Cowley rather than Pindar because Samuel Johnson praised the latter for stringing together capricious thoughts without "abruption" (214-5). See also Averill, "The Shape of the *Lyrical Ballads*," *Philological Quarterly* 60, no. 3 (1981): 387-407; and Johnson's *Wordsworth's Metaphysical Verse* (14ff.).

¹⁷³ On the mother as an "ur-figure" or a "prefigurative figure" that allows for the poet's relation to the "world of sense," see David Collings, "Emotion Without Content: Primary Affect and Pure Potentiality in Wordsworth," *Romanticism and the Emotions*, ed. Joel Faflak and Richard C. Sha (Cambridge: Cambridge University Press, 2014), 171-91, at 181-2. On the mother's breast as prosthesis see Cathy Caruth, "Past Recognition: Narrative Origins in Wordsworth and Freud," *MLN* 100, no. 5 (1985): 935-48, at 398.

¹⁷⁴ *The Philosophy of Literary Form: Studies in Symbolic Action* (New York: Vintage, 1957), 8. Burke's claim becomes the primary point of inquiry for Derrida, as this shift in scientific discourse is part and parcel with the general shift to a technical, more or less inaudible language, and therefore, according to Derrida, offered an exit from metaphysics: "No doubt this subversion has always been contained within a system of direct address [...] which gave birth to the project of science and to the conventions of all nonphonetic characteristics." See *Of Grammatology*, trans. Gayatri Chakravorty Spivak (1967; Baltimore: Johns Hopkins University Press, 1974), 3. If I understand these theorists correctly, they are analyzing the history of science's conflation of language and the thing. Science does not refer to its objects discursively. Its "representations" of things are the things, namely, mathematical objects. While this conflation is difficult to accept, the advent of digital technology and bioengineering makes apparent the negligible difference between ground (code) and figure (object).

In the first paragraph of “Tintern Abbey,” Wordsworth declares: “The day is come when I again repose / Here, under this dark sycamore.”¹⁷⁵ Without a first principle, the poet selects a place to start “here.” It is a startling variation of the postulate—a deictic gesture—harking back to the Stoic response to Greek geometry.¹⁷⁶ For the Stoics and Wordsworth, they have in mind something other than a constitutive act with its origin in an impenetrable time and place. Instead it is an act of the *hic et nunc*.

Where is here? And when? If “Tintern Abbey” were a picturesque painting, the Wordsworth figure would be dimly lit; and if it were a postmodern film, a black hole on the screen might replace the poet figure altogether. His prospect view lies in shadow, from which he begins a construction of the scene before him. In other words, Wordsworth ties “Tintern Abbey” to a blank spot in the mind, the negative excess of a sublime scene—Tintern Abbey, perhaps, but from five years earlier. Even so, he is not reconstructing Tintern Abbey exactly, but attempting to fill in the initial image, which casts a shadow over his other thoughts and feelings. Wordsworth might begin a logical sequence “here,” but “here” still follows from something anterior and unknown, an absence, void, or negative he is in the process of containing. Thus the deictic gesture represented in “Tintern Abbey” is an absence recollected in tranquility—a void now grounded in the representation.

Epistemologically, Wordsworth uses the postulate to re-establish a coherent picture of the mind. In “Tintern Abbey,” the selected spot stands in for some lost object. Such placeholders, as Slavoj Žižek explains, reinforce human common-sense

¹⁷⁵ *Lyrical Ballads, and Other Poems, 1797-1800*, 9-10.

¹⁷⁶ The deictic gesture is important for Stoicism because it speaks “of contingent states of affairs rather than a logic of the constitution of geometrical forms,” as David Lachterman states, 111-12 (see also, 98-103).

perceptions.¹⁷⁷ Such “patches” protect the human subject’s “field of perception” from utterly disintegrating “into an inconsistent, meaningless mess,” which is precisely what happens when one attempts to think of reality as a “whole”—and not just a whole object that fits in the palm of one’s hand. When the whole is imagined, everyday encounters with objects conflict with things as they really are, and thus Kant’s antinomies arise for human consciousness. To reconcile this conflict, or what seems rather to be a disavowal of things in themselves, people rely on inscriptions, images, or any cultural object in order to fill in the “gaps” and maintain consistency in the face of the paradoxical nature of things, namely, that something can be and not be simultaneously.

And yet, the picture of the mind is different despite its recovered coherence, namely because Wordsworth is not following exactly the propositional logic of Euclid. Surely, he makes logical connections. He details the plots of ground whose orchard tufts have not yet blossomed, and their green hues almost blend in against the shade of another green. The hedgerows which have yet to grow back, create a through-line (made of many lines) that leads the eye to a series of farm houses whose facades connect to green patches of gardens. He finally notes a line of smoke rising from the treetops. The series of connections must end here because the observer cannot know with any certainty the source of this smoke. But, accordingly, he makes an inference based on the information so far collected, which yields for Wordsworth two possibilities. The smoke either follows from a group of vagrants in the “houseless woods” or from the hermit’s cave, “where by

¹⁷⁷ See Slavoj Žižek’s *Tarrying With the Negative* (Durham: Duke University Press, 1993), 83-5. His example is a bench with a note on it that reads “bench,” from Philip K. Dick’s *Time Out of Joint*, but the purpose of *Tarrying* is to ground such instances of popular culture in German Romantic philosophy. My genealogy suggests that one need not wait until twentieth century science fiction to find the philosophy of Kant, Fichte, and Schelling put into action: it can be found in the poetry of the same period as Žižek’s Romantic predecessors.

his fire, / The hermit sits alone” (21-22). The final inference recalls Wordsworth’s initial conjecture earlier in the scene, when the sounds of water somewhere out of sight implied a mountain spring somewhere in the vicinity. So Wordsworth’s description of the landscape in “Tintern Abbey” is an explicit case of collecting the facts in order to generate conclusions regarding objects not readily perceptible.

Critics have argued in the past that the *Lyrical Ballads* are in step with Locke’s critique of Euclid’s deductive logic, opting instead for the inductive method of eighteenth century natural philosophy, that is, making observations before arriving at a generalized conclusion.¹⁷⁸ But by beginning with a postulate, a reflexive act cross-referencing the negative x of his “memory” with the positive information before him, Wordsworth is led to conjectures regarding what might lie beyond the horizons, past and present. Indeed, if there is a logical method specific to poetry, it seems to anticipate the inferential method for which C.S. Pierce coined the term “abduction.”¹⁷⁹ Wordsworth’s conclusions are not perfectly certain, but he arrives at more possibilities (does the smoke follow from vagrant dwellers or the hermit in his cave?). Wordsworth actually adds to the image before him, overturning false images from his past (“Though changed, no doubt, from what I was” [67]), by referring to what he sees now, and thereby arriving at conclusions not only with respect to what lies beyond the horizon of the landscape, but also the horizon of his youth. In an act “connecting” the landscape to the quiet of the sky, these steep and lofty cliffs leave even deeper impressions on a wild and secluded scene of the mind.

¹⁷⁸ See Jonathan Swift, *Fact and Feeling: Baconian Science and the Nineteenth-Century Literary Imagination* (Madison: University of Wisconsin Press, 1994), 45-62, and Alan Bewell, *Wordsworth and the Enlightenment* (New Haven: Yale University Press, 1989).

¹⁷⁹ Magnani, *Philosophy and Geometry*, 139-173.

Ultimately, Wordsworth represents in the first paragraph of “Tintern Abbey” the completion of a sublime encounter, synthesizing the negative excess of a previous event with newly collected data. The postulate is the act that bridges these two events, from a void in the mind to a present time and location. And the process of linking the two cannot be a clean deduction from premise to conclusion, because not all the information is provided: Wordsworth must fill in the blank. Accordingly, Wordsworth does not merely “discover” what is already provided. As Magnani explains regarding abduction:

If during this first cycle new information emerges, hypotheses not previously considered can be suggested and a new cycle takes place [...]the *nonmonotonic* character of abductive reasoning is clear and arises from the logical unsoundness of the inference rule: it draws defeasible conclusions from incomplete information.¹⁸⁰

As a consequence, Wordsworth actually constructs a new figure, with additional information, bringing together what was, what is, while nevertheless leaving open possibilities for what cannot be known (“And so I dare to hope” [66]). In contrast to the propositions of Euclid, Wordsworth’s poem demonstrates how invention might be possible.

At issue now is whether or not Wordsworth’s method avoids the pitfall of tautology for which Euclidean propositions and Aristotelian syllogisms were criticized, and which Wordsworth’s predecessors seemed unable to escape. If his task as set forth in the Preface is to impart “strange and awkward” feelings, the ultimate test of a tautological outcome is judging whether or not something has been imparted to the reader that was not already contained within the poem. So far, Wordsworth has illustrated only through

¹⁸⁰ *Ibid.*, 156.

an example how one might recover from an absence. He depicts in the first part of “Tintern Abbey” how he has managed to close the gap in logical reasoning through an everyday act. But this is an act “for” Wordsworth. How will others undergo a similar turn? And how can the poem inaugurate this turn with a degree of certainty? Especially, how will Wordsworth penetrate the prejudices of his readers, whose “pre-established codes of decision” function as a stopgap to any unfamiliar thought or feeling? What is required is a kind of postulate that not only displays the turn through diction and imagery, but also enacts the turn by speaking directly to the “grammar” of the mind’s logical underpinnings.

Nothing Certain: The Apodictic Postulate in “Tintern Abbey”

A command to construct a figure or story appears in numerous places throughout the first volume in *Lyrical Ballads*. It appears at the end of “Goody Blake and Harry Gill” (“Now think, ye farmers all, I pray / Of Goody Blake and Harry Gill” [127-8]); at the beginning of “Lines Left Upon a Seat In a Yew Tree”; just prior to the center in “The Thorn” (“I wish that you would go: / Perhaps when you are at the place / You something of her tale may trace” [108-110]); and just following the center in “Simon Lee, The Old Huntsman,” (“What more I have to say is short, / I hope you’ll kindly take it; / It is no tale; but should you think, / Perhaps a tale you’ll make it” [77-80]). Critics, like James Averill and more recently Brian McGrath, point out that the poet-narrator interrupts readers in the middle of “Simon Lee,” largely in an effort to remind them that their expectations for poetry of the sensationalist genre might actually paralyze intense

feelings.¹⁸¹ As the narrator of “Simon Lee” says just prior to his command: “And now I fear that you expect / Some tale will be related.” Because of these expectations, the medium and techne of poetry preclude the acquisition of new thoughts and feelings, so long as the anticipated content is delivered. But where the expectations are not met, the content is likely to be overlooked or dismissed. The objection, especially, to sentimental and sensationalist poetry, is the same objection Locke makes with respect to the medium of the syllogism and its tautological end—readers expect the premises and conclusion to cohere, and that’s what they receive.

The poet’s solution is to embed a “gap” within the poem, thereby simulating the excess of a sublime encounter, while simultaneously inviting the reader to construct a tale so as to complete a reflexive turn. In other words, Wordsworth includes within his poem an additional postulate, but one that is not merely read—it is performed. For instance, the narrator’s command to the reader in “Simon Lee” unveils in exact terms how the postulate addressed to a reader outside the poem avoids any tautological or redundant outcome. Often missing from explications of the narrator’s prefatory remark in “Simon Lee” is the emphasis on “silent thought” (“O reader! had you in your mind / Such stores as silent thought can bring, / O gentle reader! you would find / A tale in every thing” [73-6]). Silent thoughts are thoughts without recognized content: they are the negative absences leftover from sublime encounters interrupting the mind’s logical coherence. The narrator’s instructions clarify exactly what Wordsworth needs to impart in these poems in order to break “pre-established codes of decision.” But the command itself is inadequate

¹⁸¹ James Averill, *Wordsworth and the Poetry of Human Suffering* (Ithaca: Cornell University Press, 1980), 164-65; Brian McGrath, *The Poetics of Unremembered Acts: Reading, Lyric, Pedagogy* (Evanston: Northwestern University Press, 2013), 74-90, at 80-1.

to alter the course of thoughts and feelings. Indeed, an articulate, linguistic utterance that can be registered imparts the “same.” Or, “clarity” fails to effectuate change in the mind—at least on a fundamental “level.” If Wordsworth desires a poet to patch into and alter the undergirding logic of the mind, he must fight code with code. And code in Romantic-era poetry is meter.

Therefore, when Wordsworth addresses Dorothy at the end of in “Tintern Abbey,” his command does not end with, “This prayer I make...Let the moon shine on thee...with what healing thoughts wilt thou remember me and these my exhortations!”¹⁸² Here Wordsworth only represents the communication of a message outside of the poem. But he adds to his instructions that she ought to say to herself, “With warmer love, Oh! with far deeper zeal” (155). Certainly, “oh” refers to Wordsworth’s purpose because it is a sign without a referent, equivalent to the numerical zero. More importantly, he embeds within the imperative an interruption to the metrical arrangement.¹⁸³ The five feet of the pentameter are maintained but at the center of the line Wordsworth substitutes a trochee (stressed and unstressed foot) for the anticipated iamb. Often such substitutions go unnoticed. It is difficult to explain without resorting to personal experience: when reciting Wordsworth’s “Tintern Abbey” from memory, it is easy in certain places to slip from one line in the poem to a related, but unconnected line somewhere else in the poem, largely on account of the metrical consistency. But on this occasion, the emphatic “oh!” with the additional punctuation, makes the line particularly un-substitutable. The end of

¹⁸² With respect to commands such as these, Eric Lindstrom claims that Romanticism is actually distinct for its self-conscious employment of a “useless fiat,” or a command to nature despite knowing that “nature” does not listen, in *The Romantic Fiat*, 89-112.

¹⁸³ I am indebted to Marshall Brown for referring me to this line.

the poem, it could be argued, does not overwhelm in its excessive detail, but underwhelms in its cool calculation.

Meter adds an important dimension to the logic of Wordsworth's science of feelings because it provides a means of communicating with certainty.¹⁸⁴ Poetic diction and imagery alone are insufficient, as Wordsworth specifies in the Preface to *Lyrical Ballads*. "No calculation whatever can be made" with respect to words on account of their arbitrary nature, whereas with metrical arrangement, reader and poet must adhere to certain rules or "laws."¹⁸⁵ Coleridge criticized Wordsworth on this point in *Biographia Literaria*, pointing out that a madman is free to "make just the same havock with rhymes and meters" that one might with "modes and figures of speech."¹⁸⁶ But Coleridge ignores the emphasis Wordsworth places on historical meters. The laws of meter are "certain" because they are grounded in tradition, and it is with the "testimony of ages" that meter "heighten[s]" and "improves" the passions which coincide with the rhythm. Certain feelings have been associated with particular meters for centuries, and because Wordsworth knows he is experimenting with diction and images that may be less than pleasing for some audiences, he appeals to those readers' familiar feelings by way of the "general power of numbers" (144).¹⁸⁷ While feelings and associations change over time,

¹⁸⁴ My take on Wordsworth thus conflicts with Nancy Yousef's investigation of feelings in *Romantic Intimacy*, where she explores the possibility that people can sympathize without identity, a form of knowing without certainty (7). The difference in conclusions to some extent can be explained by way of our different approaches. Yousef only examines poetry as representational. She never considers the agency of the medium.

¹⁸⁵ "Preface to *Lyrical Ballads* (1800)," *The Prose Works of William Wordsworth*, 1.144.

¹⁸⁶ *Biographia Literaria*, 2.81

¹⁸⁷ It should be clear from this paragraph that I strongly disagree with any reading of Wordsworth's Preface that would depict Wordsworth as the poet of simplicity or natural feeling, which is one of "Two Roads to Wordsworth" for the influential M.H. Abrams, in *Natural Supernaturalism*:

Wordsworth seems to believe that, because the metrics of a particular kind of poem might not change for a very long time, there are some feelings and associations that travel across times and places. As Wordsworth probably took from Bacon: “For have not the verses of Homer continued twenty-five hundred years, or more, without the loss of a syllable or letter; during which time infinite palaces, temples, castles, cities, have been decayed and demolished?”¹⁸⁸ Indeed, under certain conditions, particular meters are universal.

But then, the Preface appears to include a conflict of interests. At first meter is meant to satisfy a tautological aim: identifying for the reader old and familiar poems with new ones, thereby communicating identical feelings to varying audiences. Yet Wordsworth also wants to eliminate these familiar feelings for fear of reinforcing his audiences’ ideological position. The force of meter thereby seems to challenge if not undermine Wordsworth’s more radical aim of producing strange and awkward feelings. If meter were somehow linked to the postulate, and this act somehow held the key to unlocking new and different associations with others, then perhaps the metric arrangement might elicit something additional, over and above a feeling of due measure or fitness.

Thus Wordsworth must address in more explicit terms the link between meter and an act. He explains that the reader derives pleasure from metrical language due to an underlying “principle”: “the pleasure which the mind derives from the perception of similitude in dissimilitude” (148). “Principle” appears three times in the paragraph. When

Tradition and Revolution in Romantic Literature (New York: Norton, 1971), 390-99. For a critique of the religious road to Wordsworth see Don H. Bialostosky, *Wordsworth, Dialogics, and the Practice of Criticism* (Cambridge: Cambridge University Press, 1992), 12-14.

¹⁸⁸ *The Advancement of Learning* (1605; New York: Modern Library, 2001), VIII.6, 61.

Wordsworth refers to a principle, he means a fundamental and universal law mediating the relationship between human feelings and their associated objects. The principle of similitude in dissimilitude is the “great spring” of all activity issuing forth from the mind, and later in life it remains the “chief feeder” of these activities, namely, “sexual appetite, and all the passions.” In other words, the ability to perceive a similarity held in common among dissimilar things issues forth from a constitutive pleasure in the mind, and thus this constitutive pleasure lives in all derivative appetites and passions. Additionally, Wordsworth places equal emphasis on “dissimilitude in similitude,” that is, the differential that discerns many things of a similar kind.¹⁸⁹ The logical operations he describes are 1) grouping things together according to a common property, and 2) separating like things based on distinct properties.

Wordsworth brings this short foray into “first principles” back into the everyday act of reading poetry. He locates something extraordinary in a perfunctory occurrence: “[Similitude in dissimilitude] is the life of our ordinary conversation” (148). The accuracy with which one perceives similarities in different things (similitude in dissimilitude), as well as differences among very similar things (dissimilitude in similitude) ultimately determines human “tastes” and Wordsworth’s ultimate concern, “moral feelings.” Is this principle not a thoroughgoing explanation of the postulate, according to Wordsworth? It is the constitutive act of a feeling consciousness. It then becomes the structural underside to all future reflexive acts. But it must be the case that

¹⁸⁹ Lachterman explains that, if we have many right-angled triangles, they differ from one another on account of some “indifference”: “The manyness intrinsic to each ‘kind’ of figure as well as the manyness displayed by the infinitely various images of each kind must somehow be a multiplicity indifferent to itself, a manyness of differences that make no fundamental difference, while nonetheless never collapsing into indiscriminate sameness or identity with one another” (117-18). It may be worth pursuing in future research the link between the indifference of geometrical figures and the similitude of poetic figures.

this power weakens with age, as far as Wordsworth can tell, for he singles it out as a special ability of his in book two of the *1805 Prelude*: “difference / Perceived in things where to the common eye / No difference is, and hence, from the same source, / Sublimer joy” (2.318-21). Indeed, the “common eye” is incapable of this act, which Wordsworth predictably ties to the sublime. For the unrepresentable dimension of the sublime “makes room” for differences in the logical arrangement of one’s thoughts and feelings, thereby prompting the mind in a mature, adult form of the postulate to seek out those similarities and differences that might, in turn, produce a more coherent picture of the mind. In the end Wordsworth does not fully elaborate how the principle he describes applies to poetry, but given the trajectory of his argument, it can be inferred that the logical principle links to the act of identifying a common meter among poems of varying subjects, images or genres; or discriminating poems of similar subjects, images, or genres based on metrical distinctions.

While it is clear how the principle of similitude in dissimilitude unfolds within the act of reading poetry, the problem is that, as long as a metrical arrangement “fits” a feeling with a familiar meter of yesteryear, Wordsworth’s plan will fail to produce “strange and awkward” feelings. Really, insofar as meter is the similar property among dissimilar (or new) images and language, Wordsworth only demonstrates how meter incorporates feelings of strangeness within the dominant, traditional, metrical systems. From this perspective, it would seem that the power of new images is deflated on account of their metrical underpinnings.

But seeing meter as a mechanism of incorporation assumes that Wordsworth only uses old and familiar metrical patterns. To a large extent, this is true. As Brennan

O'Donnell explains, Wordsworth was at odds with the poetic theories of John Thelwall, for example, who wanted to liberate poetry from the constraints of meter altogether, bringing the rhythm of verse closer to everyday speech.¹⁹⁰ In which case, Wordsworth can be seen as a far more conservative lyricist. And yet, as O'Donnell is quick to point out, Wordsworth introduced a number of innovations within the confines of traditional verse forms. Wordsworth invents metrical patterns never before seen in English poetry, often interwoven with more traditional rhythms. Wordsworth says little about these innovations, but he does refer to the “small, but continual and regular impulses of pleasurable surprise” located within “the metrical arrangement” (1.146). Among these pleasurable surprises, we can count the command to Dorothy in “Tintern Abbey.”¹⁹¹

If Wordsworth wants to alter pre-established codes governing decision, he attempts to accomplish this task through a kind of performative gesture, a postulate, simultaneously commanded through a linguistic utterance and felt through a rhythmic pattern, or really, the breakdown of this pattern. Because Wordsworth's innovations are couched in the dominant, traditional meters, his verse at first appears to fulfill generic expectations. But the additional variations in meter disrupt the readers' succession of thoughts and feelings, which have been accustomed to or disciplined by the beats of traditional verse. And while it would seem that the constitutive principle (similitude in

¹⁹⁰ *The Passion of Meter: A Study of Wordsworth's Metrical Art* (Kent: Kent State University Press, 1995), 26-37, esp. 28.

¹⁹¹ Christopher Miller, in “Wordsworth's Anatomies of Surprise,” *Studies in Romanticism* 46, no. 4 (2007): 413, 416. distinguishes between two different kinds of surprise in Wordsworth, but attributes the earlier form to a physical/affective domain, producing in the reader little “cognitive jolts.” Miller's book-length project on surprise has only recently been released, and I have not yet had the opportunity to read his larger argument. Likewise, Brian McGrath claims that surprises not only objectify the self, they also distance the speaking subject from nature, which is the fundamental, pedagogical import of poetry: “Poetry's method of teaching, it seems, is unavailable to the poet himself, since poetry no longer teaches just what nature teaches” (*Poetics of Unremembered Acts*, 2-3).

dissimilitude) would preclude a non-traditional meter from working on the readers' pre-established codes of decision, the converse principle (dissimilitude in similitude) allows the occasional breakdown in the meter (the gap) to work almost as if it were a virus within the code of the mind. By introducing numerical differences into a tradition of accentual-syllable verse hundreds of years old, Wordsworth disrupts the readers' pre-established codes of decision which unravels what they think they know and paves the way for strange and awkward feelings in response.

A major problem remains: Wordsworth's postulates, both verbal and metrical, are meant to impart a gap to the reader, "silent thoughts," or in sublime terms, an unrepresentable absence. But as is, Wordsworth provides no means of recovery from these gaps in the logical organization of the mind. He has left his audience in the shadow of an artificial Mont Blanc, without a sign, lamp, or guide. And yet, the critics with whom we began intimated that only after several readings did affects of reason finally settle into place. Are these affective conclusions an effect of Wordsworth's logic, or do they lie entirely in the hands of the beholder? If Wordsworth's propositional form indeed effectuates a sublime negativity, to complete the process of reflexivity and construction, a logical method is needed that also leads to the beautiful.

Beautiful Architecture

A poem like "Tintern Abbey" is revealing with respect to how the logic of the *Lyrical Ballads* works, but is it an anomaly? More than "Tintern Abbey," "Nutting" appears to obscure its own production. It has all the traits of a "moment" selected to

cover over the negative excess following from a sublime turn. As Levinson rightly points out, the moment selected is not clearly a memory of an actual event in the personal life of the poet.¹⁹² It “seems” a day, Wordsworth writes. Should the event depicted in “Nutting” be regarded as a determined point within the linear logic of a personal history? Or should “Nutting” be regarded as a figure for a hypostasized notion, somehow separate from the overall architecture of the mind? For Levinson, the poem cannot be the former because Wordsworth opines in the midst of the scene as he describes it, thereby conflating past and present feelings. Nor can the poem be entirely cut off from a personal-social history because he addresses the Maiden “outside” of the poem (like Dorothy in “Tintern Abbey”). While “Nutting” may appear to be a logical proposition untethered to any specific context, as Levinson deduces, the moral/axiom offered at the poem’s close is logically unsound and yet “formally, dramatically, and psychically appropriate” (64). The discontinuity of the logic and the gestures made to the Maiden are precisely what dress down the otherwise autonomous lyric poem, and in this way the poem is actually consistent within an “experiential continuum” (73). In other words, at the same time that Wordsworth wants to nominate this moment as a distinct and special instance, he disguises the artifice of this process of election. Wordsworth wants to dress up the process because “selection” or “singling out” or “naming” the moment ultimately has existential and moral implications for the poet: to nominate this occasion he must forego certain details, which for Levinson are the historical facts stripped away from the final product (70-3). So rather than ignore the affective-moral dimension of the poem,

¹⁹² Marjorie Levinson, *The Romantic Fragment Poem: A Critique of a Form* (Chapel Hill: The University of North Carolina Press, 1986), 60-76.

Levinson exposes the poem as dogmatically couched in the historical domain, poorly disguised in the “motley accouterments” of a logical proposition.

But Levinson holds on too tightly to the idea that “Nutting” resembles a scene from *The Prelude*, arguing why it could not be part of the autobiographical poem instead of arguing why it was part of *Lyrical Ballads* (73). Read in its original context, “Nutting” becomes a part in a larger, beautiful configuration. If “Nutting” illustrates a moment of “selection,” “Lines Left Upon a Seat In a Yew Tree” depicts a follow-up scene; the “Lucy Poems” revolve around the negative itself; while the “Poems on the Naming of Places” tend to focus on the “chance encounter” that establishes the conditions for a sublime turn in the first place—which results in naming/selecting. Many poems display one half of the turn, beginning with a chance encounter, a background story, and concluding with a command to the reader to construct a tale (“The Idiot Boy”); while some include both halves of the turn, ending with the tale itself (“Simon Lee”). In this sense, sometimes Wordsworth takes the tools out of the reader’s hands (just as he takes them out of the hands of Simon Lee), presenting a proposition in its completed form. But of course, as the postulate of “Simon Lee” indicates, even the “complete” poem is incomplete as a consequence of the subsequent constructions it demands.

Thus, if *Lyrical Ballads* is a response, not only to the individual propositions of Euclid, but to the work as whole, then it responds by presenting a non-linear logic whose steps are in conformity with the undulating constructions of real life, with all its multiplicities of directions, starts and stops, missing information, and momentary feelings of fulfillment, not to mention the painful truths of socio-economic suffering at the hands of an oppressive state/war machine, made explicit in the neglected poem “Andrew

Jones.” The effect follows from inferring one logical operation by comparing and contrasting the various poems, and thereby Wordsworth anticipates another key characteristic of abduction: “all knowing is *inferring* and inferring is not instantaneous, it happens in a process that needs an activity of comparisons involving many kinds of models in a more or less considerable lapse of time.”¹⁹³ As Wordsworth’s critics reported, the collection imparts new thoughts and feelings, but they require a process of reading and rereading. Ultimately, as a whole, *Lyrical Ballads* operates according to the principles of a sublime figure recollected over time, “beautifying” in the process, and indeed, giving way to “new sympathies.”¹⁹⁴

Certainly, the *Lyrical Ballads* is not alone. In addition to revising the Euclidean logic of individual poems, the Romantics were generally interested in experimenting with the collection’s overall structure. They did not appeal to the vertical structure of Euclid’s *Elements*, which, according to Proclus, led from definitions to Plato’s forms, a belief Mark Akenside appears to have taken to heart in *The Pleasures of Imagination*. Rather, Charles Lloyd, once Coleridge’s devoted follower, declares his rejection of any organizing principle in *Poems on Various Subjects* (1795). He boasts that his collection

¹⁹³ Magnani, 159.

¹⁹⁴ Émile Legouis claims, in “Some Remarks on the Composition of the *Lyrical Ballads* of 1798,” *Wordsworth and Coleridge: Studies in Honor of George McLean Harper*, ed. Earl Leslie Griggs. New York: Russell & Russell, 1962. 3-11, that the poems are a “somewhat random and incongruous assemblage of short poems connected by a preface that was an afterthought” (3), but he never attempts to read the sequence of these poems and instead focuses on the various styles and genres represented within the collection. Robert Mayo, in “The Contemporaneity of the *Lyrical Ballads*,” *PMLA* 69.3 (1954): 486-522, at 490, views the poems as arbitrarily arranged and not altogether inventive. Ruth Cohen has suggested that the collection constructs a single, coherent moral message, but she ignores numerous poems that divert from this message, in “The 1800 Ordering of the *Lyrical Ballads*: Its Moral Purpose,” *Caliban* 13 (1976): 31-44, at 41. James Averill sees the arrangement as a strategic affront to public taste in “The Shape of *Lyrical Ballads* (1798),” at 393. And Neil Fraistat sees a symmetrical structure in the collection with “The Thorn” as a centerpiece, buttressed by the other major poems in the first volume, “The Rime of the Ancyent Marinere” and “Tintern Abbey,” in *The Poem and the Book: Interpreting Collections of Romantic Poetry* (Chapel Hill: U of North Carolina P, 1985), 51-2.

lacks “perspicuity of plan,” and that the sequence is of so little consequence that the poems have been “thrown into this form.”¹⁹⁵ Lloyd’s dismissal cannot be taken too seriously because the collection is still categorized according to genre. But as demonstrated in works like John Thelwall’s *The Peripatetic*, Coleridge’s *Biographia Literaria*, and Byron’s *Don Juan*, literary authors were beginning to understand their art as a body of knowledge grounded in something other than a vertical, linear structure.

Still, the inferential structure of *Lyrical Ballads* has its potential downside: falsity. “Hart-Leap Well,” the opening poem of volume two, begins with a traditional ballad about a medieval knight on a hunt.¹⁹⁶ Sir Walter chases the deer to the point of its exhaustion, at which point it leaps to its death, and in response, the knight selects the spot to erect a “Pleasure-house” for himself and his merry-making friends. In the second part, Wordsworth introduces the poet figure, who in a chance encounter, happens upon the knight’s “Pleasure-house,” now in ruins (57). He contemplates “Three aspens at three corners of a square, / And one, not four yards distant, near a well” (104-3). Using what geometrical skills he has, the poet cannot construct from these points an image in the mind. Luckily a local shepherd enters the scene and tells the tale that the poet transcribed in the Part First: “that same story told / Which in my former rhyme I have rehears’d” (121-2). But in light of the shepherd’s version, it becomes clear that the poet has exaggerated the “facts” in part one. The number three is repeated multiple times throughout the poet’s version of the hart’s death, and so, like the sea captain who

¹⁹⁵ “Advertisement,” *Poems on Various Subjects* (London: F. Jolie, 1795), n.p. *ECCO*.

¹⁹⁶ Maureen McLane, in *Balladeering, Minstrelsy, and the Making of British Romantic Poetry* (Cambridge: Cambridge University Press, 2008), 140-180, esp. 166-68, conducts a rhetorical reading of “Hart-Leap Well,” in which she connects the image of the “last minstrel” to the Romantic poets’ present situation, in that, they see in the fate of their vocational ancestor an ill-fated future for themselves.

obsesses over the length of the pond in “The Thorn,” the poet charges the hart’s final three steps with a power over and above the sheer facts.

And yet, constructing false images might be a necessary evil in Wordsworth’s science of feelings. The dilemma of constructing new thoughts and feelings almost demands the possibility of myth, fiction, and falsehoods for the sake of—what? Knowing what is true? Perhaps. Or perhaps the purpose in making false conclusions is to push the limits of what might be. Indeed, an inferential logic may not lead to what is. And hopefully, over time, those images too exaggerated for any good (*fanaticism*) are tested for verifiability, and die. But some conclusions are strange, stranger than life and fiction, and should be pursued precisely for the sake of the mind’s transformation. They are the strange conclusions of logic, a logic yet to come, which might have little or no concern for the “here and now.”

Chapter 4: Definition

The Pedlar predicts in *The Ruined Cottage* that eventually “We die [...] Nor we alone, but that which each man loved / And prized in his peculiar nook of earth / Dies with him or is changed, and very soon / Even of the good is no memorial left” (MS. B 130-34). Predating by almost a century the metaphysical insecurities Nietzsche inaugurates with his claim that “God is dead,” the Pedlar’s “prophecy” is an instance of what David Collings refers to as “disastrous transcendence”: the vulnerability of human existence has been exposed.¹⁹⁷

How does the Pedlar arrive at such a grim view of human ends—is it possible to rely on the same undergirding structure of reflexivity and construction seen thus far? At first it seems so: drawing on early eighteenth century philosophy (namely, George Berkeley), the Pedlar reads the signs of nature. His response is affective, but it is also logical:

But that he had an eye which evermore
 Looked deep into the shades of difference
 As they lie hid in all exterior forms,
 Which from a stone, a tree, a withered leaf,
 To the broad ocean and the azure heavens
 Spangled with kindred multitudes of stars,
 Could find no surface where its power might sleep,

¹⁹⁷ David Collings, “After the Covenant: Romanticism, Secularization, and Disastrous Transcendence,” *European Romantic Review* 21.3 (2010), 345-361. Following Colin Jager’s work on religion and secularization, Collings establishes the tendency within eighteenth century discourse to assume that “divine intentionality” was coterminous with “natural design,” thereby eliding the “transcendental excess” of the biblical deluge (351). Gianni Vattimo, in “Dialectics, Difference, and Weak Thought,” *Graduate Faculty of Philosophy Journal* 10 no. 1 (1994): 151-164, regards Nietzsche’s claim that “God is dead,” as a declaration that a future horizon is “less ‘magically’ guaranteed” by God: the “strong frameworks of metaphysics—*archai*, *Gründe*, primary evidences and ultimate destinies—are only forms of self-assurance for epochs in which technology and social organization [have] not yet rendered us capable of living in a more open horizon.” Indeed, Vattimo claims, “The ruling concepts of metaphysics turn out to be means of discipline and reassurance that are no longer necessary in the context of technology’s present day dispositional capacity” (155-6). Vattimo does not go into specifics regarding the type of technology, but as I will argue here, Wordsworth already has something in mind as he meditates on what I call (and will explain) “reflexive media.”

Which spake perpetual logic to his soul
 And by an unrelenting agency
 Did bind his feelings even as in a chain.
 (B 94-103)

Typically, Wordsworth focuses on the logic governing one-to-one affective relations between people in either the same time and place or mediated by way of a text. His approach is largely an intervention on Euclid's axiomatic method, as the last chapter illustrated, with lessons taken from sublime and beautiful encounters. But the Pedlar's affective response, which Wordsworth eventually includes in 1814 *Excursion*, takes a future, catastrophic event as its point of reference. What kind of logical method allows the Pedlar to construct prophetic images?

Of course, the answer for Wordsworth is poetry. In addition to being the "science of feelings," Wordsworth also claims in his note to "The Thorn" that poetry is a "history" of feelings. The logical principles underlying reflexivity and construction pertain to an individual subject, but for Wordsworth they also apply to the species over time. In other words, the history of poetry/feelings is coterminous with a history of "human progress." Indeed, as Wordsworth implies by citing its history, the process of reflexivity is contingent and changing. For Romantic-era writers, poetry was playing a central role in the determination of human thoughts and feelings. What role did it play in the past? And what role would poetry play in the future—especially, in the twilight hours of humanity? In Wordsworth's meditations on human extinction, he is not envisioning a new form of reflexivity according to extinction *tout court*. Rather in his meditations on apocalypse, namely the "Arab Dream" sequence of book 5 in *The Prelude*, Wordsworth outlines a new structure of reflexivity according to the "singularity of poetry": He imagines a point in time at which reflexivity and construction are fully externalized.

While eighteenth century writers like Rousseau (*Discourse on Inequality* [1755]) and Richard Payne Knight (*The Progress of Civil Society* [1796]) explore in their speculative histories the development of human civilization from its origins, Wordsworth takes a retrospective view from its end. And from this perspective, he offers an “ethics and praxis” in the form of an affective education—often neglected by critics in connection to the “Arab Dream” of the same book. Thus Wordsworth contributes a fundamentally different structure of reflexivity and construction in which the species envisions itself in the image of a future other, and plans its “progress toward the better” accordingly.

One major problem still stands in the way. By the Romantic period, an external medium has become an indispensable component in the process of reflexivity and construction, but humanity has yet to transcend entirely the limitations of the material body. Thus Wordsworth laments in book 5 of the *Prelude*:

Oh, why hath not the mind
Some element to stamp her image on
In nature somewhat nearer to her own?
Why, gifted with the power to send abroad
Her spirit, must it lodge in shrines so frail?¹⁹⁸

As Ernest Bernhardt-Kabisch clarifies, “The forms of consciousness, unlike the forms of nature, cannot reproduce themselves, for they inhere neither in the mind of God nor in the properties of matter but only in language. Mind therefore can neither recreate its culture nor can it exist apart from it since it is itself only the sum of what it has thought and spoken.”¹⁹⁹ Indeed, the mind appears to depend on its external media, but cannot inhere

¹⁹⁸ *The Prelude*, 5.44-48.

¹⁹⁹ Ernest Bernhardt-Kabisch, “The Stone and the Shell: Wordsworth, Cataclysm, and the Myth of Glaucus,” *Studies in Romanticism* 23, no. 4 (1984): 455-90, at 468.

in it, and thus, with the end of either mind or its various media, the human “spirit” arrives at its ultimate definition.

But what if it were possible for the forms of consciousness to become the forms of nature? What if they could reproduce themselves, and thus mind could recreate its culture from within nature? Surely such a series of questions belongs to the realm of science fiction. Even if it were possible for the mind to impart itself to an external medium, how would such an idea even occur to late-eighteenth and early-nineteenth century writers? And above all, according to what underlying logic would this externalization adhere—is it still the logic of poetry? For Wordsworth, partial answers are perhaps inevitable in this speculative realm of philosophy. But at least that partial answer was offered by economics, which afforded Wordsworth a glimpse at how an underlying logic also governs “human progress” (really, European progress), furnishing clues as to how the mind/nature gap might close: It closes by replacing nature. Through an economic lens, Wordsworth sees how the “natural order” of the earth turns upside down, creating a human-inhuman threshold.

Axiomatic Human Progress

While the history of economics demonstrates a tendency towards its autonomy—with greater reliance on mathematical models—the French physiocrats during the mid- to late eighteenth century not only included nature within their system, but actually grounded their system in nature as if it were an indemonstrable given like one of Euclid’s

axioms.²⁰⁰ If recent theorists writing on the future of capitalism and a definition of the human still regard the economy in axiomatic terms, this characterization would not have been more apparent to people at any point in history than in the decades just preceding Wordsworth's early period. With the rise of Physiocracy came the accompanying view that 1) an axiomatic system (where steps in succession necessarily follow preceding steps) could account for "human progress"; 2) that this axiomatic system begins with nature; and 3) that capital would become the new driving force behind "human progress."

The engine of Physiocracy was Quesnay's *Table Economique*, which features a zig-zag shaped diagram modeling the accumulation of revenue and the circulation of wealth.²⁰¹ While not exactly *more geometrico*, like Newton's *Principia* or Spinoza's *Ethics*, the *Table* was a diagram with a rigid geometrical shape with necessary sequential steps following from a primary hypothesis. Some might object that it is not a shape located in Euclid's *Elements*. Indeed, with its back and forth ladder design, it appears as if it were a wholly modern invention. But its basic outline actually follows from a pre-Pythagorean, geometric symbol and its evolution is itself a perfect match to the tale of human progress presented in this chapter. From the cabalistic tradition, the geometrical diagram of the ten Sefirot from the *Sefer Yezirah* "affirms that god created the world by means of 32 secret paths of wisdom which are defined as the 10 Sefirot and the 22

²⁰⁰ Earl Gammon, in "Nature as Adversary: The Rise of Modern Economic Conceptions of Nature," *Economy and Society* 39.2 (2010): 218-246, provides an overview of the tendency towards nature's exclusion in eighteenth and nineteenth century economics, from physiocracy to William Stanley Jevons, with whom came an abandonment of "classical political economy's goal of aligning human nature with a natural moral economy. [Marginal analysis] posited an *a priori* conception of want independent of the underlying natural economy, with analysis focusing on the aggregate outcomes of exchange rather than the psychology of want so crucial to earlier political economy" (237).

²⁰¹ For the standard English edition of physiocratic economics see Ronald L. Meek, *The Economics of Physiocracy: Essays and Translations* (Cambridge: Harvard University Press, 1963); and for Physiocracy in its wider historical context see Linda Vardi, *The Physiocrats and the World of the Enlightenment* (Cambridge: Cambridge University Press, 2012).

elementary letters of the Hebrew alphabet.”²⁰² The image reappears in a sixteenth century diagram from Juan de Celaya, a contemporary of Ramus in Paris, demonstrating the “geometry of the mind.” It predates efforts to quantify the mind, relying instead on geometry for its proof: “All of I have just said is made clear by the following diagram.”²⁰³ The exact origin of Quesnay’s table requires additional research, but if he did rely on his Renaissance predecessor, one might conjecture that he saw in his model the superposition of the mind’s logic onto nature. And thus the mind, in the form of economics, would come to dominate the earth.

The *Table*’s abstract form was not lost on British reviewers when an English version of Marquis de Mirabeau’s *Oeconomical Table* appeared (an expansion and explication of the original table). *The Monthly Review* ends with the observation that it is “almost impossible to give an abstract of a work, that is in itself but an abstract of demonstrations and principles; which are traced through the numerous objects of the oeconomical science” (401).²⁰⁴ A more detailed analysis appears in the *Critical Review*, which at one point focuses on the translator’s apology to readers of taste. The apology is warranted because the Marquis’ rules determine that a nation prone to spend its money on luxury items will spend less on agricultural goods—which ultimately leads to bleak human ends. The reviewer speculates that if the “taste for the luxuries of decoration

²⁰² Magnani, *Philosophy and Geometry*, 15.

²⁰³ From *Expositio... in pimum tractatum Summularum Magistri Petri Hispani* (Paris, 1525), in Walter J. Ong, *Ramus: Method and the Decay of Dialogue: From the Art of Discourse to the Art of Reason* (Cambridge: Harvard University Press, 1958), xvi, 81.

²⁰⁴ Review of “The Oeconomical Table, an Attempt Towards Ascertaining and Exhibiting the Source, Progress, and Employment of Riches,-with Explanations,” *The Monthly Review, or Literary Journal* 34 (May, 1766), 400-1. *ECCO*.

universally [were] to prevail” people in towns and cities would restrict themselves to “the purchase of manufactures,” leading to “an almost total cessation of agriculture, the destruction of landed interest; and, to go a step farther than my authors perhaps intended, an end of every sublunary enjoyment worthy the wish of a rational being” (452).

Reaction to the *Table* was dark indeed. If agricultural products from the earth are left to languish, then the relational ties between earth and sapient beings will splinter. The point anticipates Wordsworth’s concerns in the Preface to *Lyrical Ballads* regarding the rise in metropolitan populations. Both authors fear that city-bound residents will lose touch with nature.

While it is highly unlikely that Wordsworth ever encountered the *Table* (I have found no evidence to support such a claim), he wrote in a letter on 8 June of 1794 to William Matthews about his plan for a political journal, where he also praises Physiocracy’s principles as espoused in Anne Robert Jacques Turgot’s *Reflections on the Formation and Distribution of Riches*.²⁰⁵ Wordsworth was probably attracted to Turgot’s work because it excluded the algebra and hence the density of the original *Table*, but included the “metaphysical part,” as Turgot tells Dupont in a letter dated 9 December 1766.²⁰⁶

²⁰⁵ See his plan for “‘*The Philanthropist a monthly Miscellany*,’” in *The Letters of William and Dorothy Wordsworth: The Early Years 1787-1805*, ed. Chester L. Shaver and Ernest de Selincourt (Oxford: Clarendon Press, 1967), 125.

²⁰⁶ “Appendix,” *Reflections on the Formation and the Distribution of Riches* (1770; New York: Macmillan, 1911), 110-11.

[To face Page 21.]

THE OECONOMICAL TABLE.

NUMBER I.

Belonging to the first, second and third Sections of the first Part of the Explanation; in which Sections are considered, 1st, three different Kinds of Expence; 2^{dly}, their Distribution; 3^{dly}, their Effects; 4^{thly}, their Reproduction; 5^{thly}, their Relations one to another; 6^{thly}, their Relations to Population; 7^{thly}, to Agriculture; 8^{thly}, to Manufactures; 9^{thly}, to Commerce; and 10^{thly}, to the total Amount of National Riches.

Annual productive Advances relative to Agriculture, &c.	Annual Rent, or Land-lord's Share, of the Annual Income	Annual barren Advances relative to Manufactures, &c.
l. s. d.	l. s. d.	l. s. d.
30 0 0 produce net	30 0 0	15 0 0
15 0 0 reproduce net	15 0 0	15 0 0
7 10 0 reproduce net	7 10 0	7 10 0
3 15 0 reproduce net	3 15 0	3 15 0
1 17 6 reproduce net	1 17 6	1 17 6
0 18 9 reproduce net	0 18 9	0 18 9
0 9 4 ¹ / ₂ reproduce net	0 9 4 ¹ / ₂	0 9 4 ¹ / ₂
0 4 8 ¹ / ₂ reproduce net	0 4 8 ¹ / ₂	0 4 8 ¹ / ₂
0 2 4 reproduce net	0 2 4	0 2 4
0 1 2 reproduce net	0 1 2	0 1 2
0 0 7 reproduce net	0 0 7	0 0 7
0 0 3 ¹ / ₄ reproduce net	0 0 3 ¹ / ₄	0 0 3 ¹ / ₄
0 0 1 ¹ / ₂ reproduce net	0 0 1 ¹ / ₂	0 0 1 ¹ / ₂
0 0 0 ¹ / ₂ reproduce net	0 0 0 ¹ / ₂	0 0 0 ¹ / ₂

TOTAL REPRODUCTION 30l. rent, besides the proportional annual advances of 30l. and the proportional interest of the husbandman's primitive advances and annual advances, amounting to 17l. 5s. 8d. ¹/₂ which the earth restores. Thus, the reproduction amounts to 77l. 5s. 8d. ¹/₂ including the rent of 30l. which is the basis of this calculation, but exclusive of the land-tax of 15l. the tithes of 7l. 10s. the annual advances required for the annual reproduction of the fixed land-tax and tithes, and the interest there and the proportional primitive advances. All these sums put together form an annual reproduction of 135l. 5s. which is half the produce of plough in a state of high cultivation, as shall be hereafter explained.

207

Reflections begins not with a first principle but with the refutation of one. Humans cannot divide the land of the earth equally so that each person would possess what is “necessary for his own support,” and therefore, the equal division of land cannot stand as

207 Fig. “The Oeconomical Table,” from Marquis de Mirabeau, *The Oeconomical Table: An Attempt Towards Ascertaining and Exhibiting the Source, Progress, and Employment of Riches with Explanations, by the Friend of Mankind, the Celebrated Marquis de Mirabeau* (London, 1766), 20. ECCO. 21 July 2012.

a principle from which an economic system begins.²⁰⁸ After several sections devoted to overturning this “hypothesis,” Turgot’s system offers a different principle in the form of the husbandman’s “pre-eminence,” the “first mover in the circulation of labours” (7). Turgot elects the farmer, not for any reason related to his character, but on account of the husbandman’s “*physical necessity*.” Without food, no one can survive, and while a society requires many other kinds of labor, the husbandman provides the “first impulse.” Moreover, his is the only labor that produces “over and above the wages of the labour,” and is thus “the sole source of the riches, which, by their circulation, animate all the labours of the society” (9).

Towards the center of the text, a new age is upon civilization in which the accumulation of commodities transforms into capital. According to Turgot, a surplus of product leads to a desire for “exchange articles of a more durable nature,” or what he also calls “*moveable riches*” (43). In no division of labor has a person been incapable of amassing just a little more money than what subsistence required (44). And at a certain point in time (Turgot is not interested in an exact chronology), cultivation of products depends rather on an “advancement” or a loan than on the earth itself (46). Money is not the same as the “gift of nature,” and its introduction certainly appears to represent a break from nature in Turgot’s system. Still, it is more accurate to say that moveable riches have a value exchangeable with the land (48-50), or that capital is the mirror of land and that both are unceasingly generative sources.

At first, this stage of human progress appears to be in check. One can invest in agriculture, manufacturing, an estate that brings in revenue, commercial undertakings,

²⁰⁸ *Reflections*, 3.

and lending with interest. The various investments influence one another within a society (81), and while they lead to unequal products, their mutual give and take produces among them an “equilibrium, as between two liquids of unequal gravity which communicate with one another at the bottom of a reversed syphon of which they occupy the two branches; they will not be on a level, but the height of one cannot increase without the other also rising in the opposite branch” (83-4). Turgot’s figure of equilibrium creates the illusion that there is a “natural” quality to the economy: each player has a proportionate role to play, including nature itself.

Yet within his enumeration of the various investments, Turgot turns from manufacturing to agriculture with this curious aside: “but I have a little reversed the natural order, which would have required that I should begin by speaking of the enterprises of agriculture, which in like manner can neither be carried on nor extended nor made profitable save by means of great advances” (55). He means that he has not begun this series of passages with his first principle, but the reversal reflects a very real disturbance to the ground of his system: capital displaces the earth as the primary source of wealth and revenue, and ultimately the interest of this capital replaces the land as the measure of value.

Accordingly, nature is no longer the “ground” of the economy. Interest becomes the “thermometer” according to which one can judge a nation’s ability to provide for “its enterprises in agriculture, manufacturing & commerce” (85). Once primary, the earth has become merely another part in the economic machine. The true blood of the economy is the circulation of money: “that useful and fruitful circulation which gives life to all the labours of the society, which maintains movement and life in the body politic, and which

is with great reason compared to the circulation of blood in the animal body” (63).²⁰⁹

Thus Turgot’s discussion of economy actually outlines the progress of nature’s displacement by a global “second nature.”

The implications of Turgot’s treatise on the economy are in line with the same logic of progress that Rousseau applies to culture. Rousseau claims in the *Discourse on the Origin of Inequality* that human language begins with cries of nature before being “combined” with gesticulation, together signifying moving things like water or animals (31). With every combination, the human becomes increasingly articulate. Yet Rousseau sees a proportionate expansion of a figurative “dictionary” and the limitation of “knowledge” (32). In other words, the more human culture expands its vocabulary, the more distance it places between its current state and a state of nature. Both Rousseau and Turgot equate the “natural” with the whole, self-sufficiency, or autonomy. The moment humans begin to desire what lies out of “arm’s reach,” humanity begins to prop itself on external physical, intellectual, and moral supports.²¹⁰ Neither French philosopher is denying the impressive expansion of culture, but the cost may be the very humans culture was intended to uphold.

Unlike Rousseau, Turgot is generally optimistic. His short treatise concludes with balance or equilibrium within society by reaffirming the place of the earth within the

²⁰⁹ The Physiocrats import from John Locke the image of the economy as an organic body. On the connection to Locke see Stephen Gudeman’s *Economics as Culture: Models and Metaphors of Livelihood* (London: Routledge, 1986), 80-84.

²¹⁰ As Bernard Stiegler claims in *Technics and Time I*, at this point in history, the human hand does not yet exist as such: “Originary man with everything immediately at hand has nothing: he is everything, he is himself in totality, he is his own fullness, and by that very fact, this hand with ‘everything close at hand’ is no longer a hand, it no longer either manipulates or works” (114). In other words, in Rousseau’s myth of “the early human” the absence of any “difference” implies the continuity of nature and humans; the development of technics inaugurates the separation of humans and nature, and ultimately difference.

grander logic of progress. The only way to accumulate wealth in society is by way of the land. Only land supplies the capital that eventually becomes the advancements, which in turn, provide the foundation for new agricultural and manufacturing enterprises.

Affirming then the axiomatic development of history, Turgot concludes: “all the rest is the accumulated fruit of the economy of the centuries that have followed one another since man began to cultivate the earth” (96-7). For Turgot, rather than end pessimistically, history ultimately arrives at a balance.

In sum, Turgot struggles throughout to maintain a balanced order within society, yet he hints at times that a fundamental change is upon the earth and humanity: “nature” as great provider is not being supplemented but replaced by capital. Moreover, this replacement is built into the economy’s undergirding logic. To progress does not point to a mere separation between “nature” and “culture,” but the usurpation of the former by the latter. My interpretation is closer in kind to Turgot’s reviewers than Turgot’s. However he provides all the variables for later writers like Wordsworth to infer that capital is only the most invisible force in this sea change. With the rise of capital comes industry; with the rise of industry comes the need for greater technology; with the need for greater technology comes advancements in science—and all at the detriment of the “earth.” While the logical development of human progress according to Turgot achieves a state of equilibrium (or so he hopes), Wordsworth extends this tendency to increase and expand the “economy” to a position of radical disequilibrium or asymmetry.

Second Nature

Wordsworth maps in *The Prelude* the “progress of human civilization,” from past, present, and future perspectives. Not necessarily offered in chronological order, Wordsworth depicts his image of human progress of from a past perspective towards the end of autobiographical work, book 12. Wandering the Sarum plain of his youth (which reinforces the poet’s backwards point of view), Wordsworth notes the “lines, circles, and mounts [...] With intricate profusion figuring o’er / The untilled ground (the work, as some divine, / Of infant science, imitative forms / By which the Druids covertly expressed / Their knowledge of the heavens, and imaged forth / The constellations).”²¹¹ While the shapes on the ground refer to the stars in the sky, for Wordsworth the Druids’ infant science is a proto-form of geometry made of lines, circles, and mounts.²¹² But as part of this infant science Wordsworth also imagines the “dismal flames! / It is the sacrificial altar, fed / With living men—how deep the groans!” For what reason does Wordsworth’s fantasy take such a gruesome turn?

Wordsworth’s image of Stonehenge draws together humans, nature, and culture (in a broad sense). In Stonehenge, the ancient Druids had already combined an ur-science and primitive technics, but their medium lacked a source of power. In order to manage their world (economy), something must activate their medium. A (human) body must be

²¹¹ 1805, *The Prelude*, 12.340-47.

²¹² Astronomy, according to the stoic Geminus from Rhodes’ writings (73-67 B.C.), had been regarded as an application of mathematics dealing with “perceptibles,” including “mechanics, astronomy, geodesy, canonic, and calculation.” See Proclus, *A Commentary on the First Book of Euclid’s Elements*, 31. Not until the early modern period, according to Adam Smith, did astronomy become less geometrical—although not less mathematical: “The Earth had hitherto been regarded as perfectly globular, probably for the same reason which had made men imagine, that the orbits of the Planets must necessarily be perfectly circular. But Sir Isaac Newton, from mechanical principles, concluded, that, as the parts of the Earth must be more agitated by diurnal revolution at the Equator, than at the Poles, they must necessarily be somewhat elevated at first, and flattened at the second [...] Newton [...] preferred his mechanical computations to the former measures of Geographers and Astronomers,” in “The History of Astronomy,” *The Essential Adam Smith*, 22-36, at 32.

sacrificed at the altar (culture) to stave off an intruding outside (nature/gods). Indeed, at this juncture humans have “separated” from nature, but (super)nature still dominates over humans and their meager apparatuses.

Despite its insufficiency, Stonehenge marks an important phase in Wordsworth’s history of poetry/feelings: It is the precursor to a reflexive medium. Stonehenge establishes a relationship, as Wordsworth says, between the “living and the dead” (12.336). But structurally the medium operates in a one-way direction. The mind does not yet re-cognize “nature.” While the gods or nature might respond to this exchange, it is not yet a case of the human imagination reflecting upon its own images. The case is far worse, in that “communication” requires an external power source in the form of human sacrifice. The human species thus requires media that can work with nature to manage human ends, physical, psychical, and affective.

The view of human progress from the present is markedly different. In 1814, the same year that the Pedlar’s prediction regarding an end to human existence was first published in *The Excursion*, *The Times* ran an article on November 29 declaring that “the reader of this paragraph now holds in his hand one of the many thousand impressions of *The Times* newspaper which were taken off last night by a mechanical apparatus.”²¹³ The author explains how the new machine, “almost organic...relieves the human frame of its most laborious efforts in printing.” In Wordsworth’s second major stage of human development, “culture” has changed dramatically on account of technological breakthroughs. No doubt, the “almost organic” nature of machinery has troubling consequences for Wordsworth.

²¹³ Humphrey Jennings, ed., *Pandaemonium: 1660-1886: The Coming of the Machines as Seen by Contemporary Observers* (London: Icon, 2012), 135.

Indeed, the signs of the times are ambiguous: Wordsworth does not see a simple progression from non-reflexive media (Stonehenge) to reflexive media. In fact, in the early nineteenth century, Wordsworth sees the various discourse media split in two.²¹⁴ His aim, as this entire dissertation outlines, is to produce a reflexive medium with which the human mind “participates,” generating new figures and feelings. But his aim is a response to the dominant culture, which is increasingly dependent on technical media that produce commodities at an alarming rate without an accompanying reflection. Like trees sprouting a thousand buds (or insects laying a thousand eggs), the machines appear “almost organic.” As the border separating “nature” and “human” begins to recede into an organic “background,” does this retrenchment signify an encroaching nature? or the becoming-second nature of the machine? And if the latter, what happens to the process of reflexivity and construction?

In book 8 of *The Excursion* (1814), Wordsworth describes a techno-industrial capitalism intermingling with the earth. When the subject of industry and technics is broached between the Solitary and the Wanderer, the typically pessimistic Solitary lapses into a nostalgic and romantic characterization of the chivalrous knight as a solitary figure communing with nature. As examples or teaching tools, such knightly figures are “apt Instruments,” for raising others “through just gradation” from “savage life / to rustic, and the rustic to urbane.”²¹⁵ Given the stages from rusticity to urbanity, the Solitary is

²¹⁴ James Chandler, in *Wordsworth's Second Nature: A Study of the Poetry and Politics* (Chicago: University of Chicago Press, 1984), 119, 124, identifies culture in Rousseau as divided between “rational method” and “antihuman institutions,” and in Wordsworth between “natural lore” and “rational method,” a dichotomy that I am complicating. The last chapter and the present chapter demonstrate that Wordsworth’s “natural lore” is blend between rationalism and pragmatism. This chapter focuses on a split between two different trends in media technology.

²¹⁵ *The Excursion*, 8.69, 72-3.

thinking not only of the education of an individual life, but he also has in mind a generally optimistic trajectory with respect to human history. Instead of indulging the Solitary, the typically optimistic Wanderer reminds the group that “if to these Wayfarers once pertained / Aught of romantic interest, ’tis gone” (86-7). Rather, the Wanderer sees the age of Romance as replaced by “An inventive age”:

I have lived to mark
 A new and unforeseen Creation rise
 From out the labours of a peaceful Land,
 Wielding her potent Enginery to frame
 And to produce, with appetite as keen
 As that of War, which rests not night or day
 Industrious to destroy! (8.91-97)

Wordsworth directs readers from laboring the land to the war industry. In an uncanny image of agriculture, the “unforeseen Creation” of the farmer’s labor “rise[s]” from the land, land which was supposed to serve as a first mover in the accumulation of wealth. Two consequences follow instead. The husbandman actually contributes to the war efforts abroad, twisting the traditional Virgilian eclogue, so that the country folk frightened at the war-torn city now have an implicit hand in the object of their fears. As the Wanderer confirms in the following passage, he sees “triumph that proclaims / How much the mild Directness of the plough / Owes to alliance with these new-born arts” (131-33). The plow is really a part in the war machine. Of course, this outcome merely outlines a change in human understanding with respect to the far-reaching connections between the agrarian and the military-industrial world. More significant, because it is a change in the very fabric of terrestrial life, the dividing line diminishes between peaceful “land” and potent “enginery.”

In contrast to the Solitary's romantic image of human progress, the Wanderer laments that progress has come at the cost of the first cause propelling this progression. The Wanderer continues to enumerate the ways in which industry has upset the "natural" order, so that "whereso'er the traveler turns his steps / He sees the barren Wilderness wasted" (129-30).²¹⁶ The Wanderer thus bears witness to the ever-expanding industrial matrix consuming its own ground.²¹⁷

The marriage of physis and technics (or really the hostile takeover of the former by the latter) certainly provides an advantage. Where druidic stones required sacrifice to operate, economists like Turgot and Adam Smith praise modern machinery that remove the need for human blood (literally, for Turgot, as in the case of a non-technical medium like slavery).²¹⁸ Yet, as Wordsworth is quick to point out, and the contemporary theorist Reza Negarestani re-affirms in the twenty-first century: "[Such] an identification of capitalism [as an emancipatory and participatory system] has become a programmatic form of apologetics for capitalism's ubiquity which in turn justifies the axiomatic assimilation of all planetary systems, forms of life and vectors of thought precisely by the

²¹⁶ See also Wordsworth's reference to Europe's "blasted hopes; Her fields of carnage, and polluted air," *Ibid.* 3.833-34.

²¹⁷ While generally a fan of John Dyer, an early eighteenth century precursor to the Romantic lyricist, in a note to book 8, Wordsworth takes exception to the positive message that the latter attributes to machinery in *The Fleece*: "[Dyer] wrote at a time when machinery was first beginning to be introduced, and his benevolent heart prompted him to augur from it nothing but good. Truth has compelled me to dwell upon the baneful effects arising out of an ill-regulated and excessive application of powers so admirable in themselves" (314). Wordsworth's target is the kind of machinery and its misuse rather than all technological media.

²¹⁸ Working with steam engines, Adam Smith describes a boy "who loved to play with his companions," and so he ties a string around the "handle of the valve...to another part of the machine" so the "valve would open and shut without his assistance," "An Inquiry into the Nature and Causes of the Wealth of Nations," *The Essential Adam Smith*, 166. On the "abominable custom of slavery" see Turgot, *Reflections*, 19.

mimetic flow of Capital.”²¹⁹ No doubt, Negarestani differs from Wordsworth in the scope of his systems (“planetary”). Still, both authors are mindful of the very different domains that contribute to the burgeoning/overwhelming economic system, and so while it may provide certain benefits, human progress is not without its costs.

But the problem for Wordsworth is not the approaching autonomy of technics alone—but more particularly the non-self-reflexive nature that the new mediums encourage. Indeed, machinery creates the illusion of a dynamic relationship because technics still demand a degree of participation, but of what kind? Human blood is no longer required, but neither is the mind. Wordsworth never identifies in book 8 of *The Excursion* a “cool medium” that invites human imagination to construct an image, thought, or feeling above and beyond what the medium already supplies. Everyone can “participate,” but no one thinks or feels. Above all, once the non-reflexive qualities of modern machines become “almost organic” or “naturalized,” their level of integration with humans and nature diminishes the “margin of indetermination” that allows for change.²²⁰ If whatever can happen will happen, the making technical of nature without reflection significantly reduces what can happen. Creating any “distance” between users and technical media will become more difficult. Eventually all “life” will be corralled

²¹⁹ “Drafting the Inhuman: Conjectures on Capitalism and Organic Necrocracy” *The Speculative Turn: Continental Materialism and Realism* eds. Levi Bryant, Nick Srnicek, and Graham Harman (Melbourne: re.press, 2011), 182-201, 186.

²²⁰ Elucidating Gilbert Simondon’s philosophical works, Adrian Mackenzie, in *Transductions: Bodies and Machines at Speed* (London: Continuum, 2002), explains that “technicity” refers to a technical object’s “degree of concretization” within a web of relations. That a technical object or ensemble has a degree of concretization implies that it also maintains a “margin of indetermination” that has not or cannot be “fully lived, represented or symbolized” but remains an intrinsic aspect of the object (13, 11).

into the reproduction of itself—and as chapter one illustrates—largely for the sake of a military enterprise. This is Wordsworth’s Death Star.

But Wordsworth imagines the third and final stage in human progress as a great inversion: the utter and irreducible externalization of human consciousness at the end of the human species. In book 5 of *The Prelude* (1805), Wordsworth relays the tale in which his friend (later Wordsworth) falls asleep and dreams of a man, half Arabian Bedouin and half Don Quixote (5.49-139). This Arabian Knight carries with him a stone and a shell, and tells the dreaming man that the stone, “to give it in the language of the dream, [is] Euclid’s *Elements*.” When the Arab Knight tells the dreaming man to hold the shell to his ear, upon doing so he hears an “ode in passion uttered” that foretells the “destruction to the children of the earth by deluge now at hand.” If the flood destroys all of humanity, the “human” in “human progress” is necessarily terminated. Unlike other images of the flood, which speak to an ongoing process of infinity,²²¹ the deluge of the “Arab Dream” speaks of catastrophe or a logical “mis-turning or over-turning (*kata-strophe*),” because, according to Ray Brassier, such a catastrophe “blots out the terrestrial horizon of future possibility relative to which human existence, and hence philosophical questioning, have hitherto oriented themselves.”²²² The infinitude of mind is reduced to the material

²²¹ We should thus contrast the flood of the Arab Dream to the waterfall of the Alps in book 6 of the *Prelude*, where, according to David Collings, Wordsworth “encounters nature as the process of an eternal apocalypse, a mode whereby nature, in perpetually destroying itself, perpetually endures” (“Covenant” 354). Following this sublime encounter, according to Collings, Wordsworth’s apostrophe to the imagination resembles the very process of an ongoing apocalyptic nature, thereby forcing “the empirical subject to encounter an internalized agency akin to that creating-destroying force” (355). The avowal of such a gap within consciousness “openly declares that the subject is divided from itself, lost without the hope of recovery.” Thus the primary difference between the Alpine scene and the Arab dream is the difference between a psychological division of consciousness and consciousness’ division from the biological body.

²²² Brassier is speaking specifically about a solar catastrophe in *Nihil Unbound*, 223, in reference to Lyotard’s *The Inhuman*.

finitude of earth's habitable conditions. Thus the deluge would appear to mark the "deadline" for eternal thought or thinking.

Brassier would say that Romanticism and its theories of reflexivity are now representative obstacles to philosophical opportunities. Indeed, Brassier's frank stare into the abyss poses challenges for any philosophical position that sees a human horizon as the ground upon which it rests. But for one interlocutor, Brassier's demystifying step forward only refutes the "vitalistic horizon implicit in the antihumanist definition of capitalism proposed by [Nick] Land" (190).²²³ Reza Negarestani points out that Brassier's success still leaves wide open the inevitability of a "singularity" (a revolutionary turn) brought on by a larger economic system (capitalism) as an emancipative step in the conservative, albeit evolutionary, development of the human species. As a consequence, Brassier consciously or not invites a utopian image in which the last vestiges of the mind's demons are eliminated but at the cost of propping up a happy capitalist state. Rather, and much like Jacques Khalip's reading of disaster and ruination in Wordsworth's *The Ruined Cottage*,²²⁴ Negarestani is interested in the "possibility of life which consists of energetic opportunities" following from the "traumatic scission from the inorganic" (187). Those "energetic opportunities" can be found in the stone and the shell.

As Wordsworth tells it, the Arab Knight is going to bury these two objects due to the oncoming flood, and so, presumably, the stone and the shell bear the weight of

²²³ Reza Negarestani, "Drafting the Inhuman: Conjectures on Capitalism and Organic Necrocracy" *The Speculative Turn: Continental Materialism and Realism* eds. Levi Bryant, Nick Srnicek, and Graham Harman (Melbourne: re.press, 2011), 182-201.

²²⁴ "The Ruin of Things," *Romantic Circles Praxis Series*, ed. Theresa Kelley (2011).

surviving the human species. The stone holds communion with the stars, and “wed[s] man to man in purest bond of nature, undisturbed by space or time.” And the shell is not only a book of poetry, but the book of all poetry: “a god, yea, many gods, with voices more than all the winds, / And was a joy, a consolation, and a hope.” They are the adamantine truths, sensuous and intellectual, wrapped in two packages. While scholars have provided numerous interpretations for these two emblems,²²⁵ the length of their allusions has not been exhausted. Sure enough, in Turgot’s short treatise on the formation and distribution of wealth, Wordsworth would have encountered this anecdote regarding money: “Many Nations have adopted as a common measure of value in their language and in their Commerce different substances more or less precious; there are even to-day certain Barbarous Peoples who employ a kind of little shell called *Caurits*. I remember to have seen at College apricot stones exchanged and passed as a kind of money among the scholars” (37). By “stone,” Wordsworth most likely means rock and not a seed. But perhaps he allows for a degree of ambiguity in his meaning. After all, his symbol for poetry is a shell, which typically exemplifies the golden ratio, and thus represents geometry. Wordsworth’s selection thus makes geometry poetic and poetry geometrical.²²⁶ Is this not a recipe for a mixed medium that is autonomous, self-generating (*autopoiesis*), but also reflexive? Certainly, at 1800 poetry is an “extension of man” but it provides the conditions under which humans enact a reflexive turn. Yet, at the end of the human

²²⁵ Ernest Bernhardt-Kabisch, in “The Stone and the Shell: Wordsworth, Cataclysm, and the Myth of Glaucus,” provides the most extensive and fascinating exposition of the stone and the shell’s emblematic roots, 478-487. See also Theresa Kelley, “Spirit and Geometric Form: The Stone and the Shell in Wordsworth’s Arab Dream,” *SEL* 22 (1982): 563-582; Mary Jacobus, *Romanticism, Writing, and Sexual Difference*, 118-125; Jonathan Wordsworth, *William Wordsworth: The Borders of Vision* (Oxford: Clarendon Press, 1982), 194-6; and Geoffrey Hartman, *Wordsworth’s Poetry, 1787-1814*, 225-33.

²²⁶ Marc Redfield, in “Wordsworth’s Dream of Extinction,” *Qui Parle* 21.2 (2013), 61-68, reminds us that a stone and a shell together form (eventually) form a fossil.

career, poetry may be an autonomous, technological medium, that has imported the reflexivity characterizing human sapience. Thus Wordsworth envisions an “inhuman reflexivity.”

The stone and the shell contrast to an earlier historical artifact (Stonehenge) that preserved geometrical knowledge yet relied on an external agent as the engine of communication: its communicative “power” required sacrifice. At the second stage of human development Wordsworth imagines technological media that no longer binds human hands—although the contrary can also be demonstrated²²⁷—and thus the economy grows at exponential rates, but without regard for its surroundings (human and natural). Wordsworth now imagines a future catastrophe in which “power” is built into the object as poetry, *poiesis*, or making. As he attests in a meditation on the history of all poetry at the conclusion to the Arab Dream sequence, Wordsworth believes that he should speak of poetry and poets “as powers / For ever to be hallowed—only less / For what we may become, and what we need, / Than Nature’s self which is the breath of God” (5.201-222). Thus poetry requires no one for its audience other than its own auto-generating self. Above all, as a medium that “weds man to man” and includes “voices more than all the winds,” Wordsworth’s inhuman medium possesses the necessary ingredients for reflexivity without recourse to an external medium. Humans might be born with instincts and drives: Wordsworth’s inhuman medium is born with a matrix.

The problem in 1800 is that humans cannot construct without external assistance—there is no a priori construction because there are no actual givens. Kant

²²⁷ In an analysis of the “frost-bitten girl” tied to a cow from *The Prelude*, Simpson claims humans no longer domesticate animals; instead humans become automatons tied to what has become a technical apparatus, in *Wordsworth and Commodification*, 19. Coincident with Simpson’s argument, Ron Broglio makes the case for cattle as a “transitional space between nature and culture,” in “The Romantic Cow: Animals as Technology,” *The Wordsworth Circle* 36, no. 2 (2005): 48-52, at 48.

knew this, and hence his skepticism when reading Euclid—from where do Euclid’s definitions come?²²⁸ He tried to circumnavigate this problem by hypostasizing space and time, and at which point, they were then no better or worse than any other non-demonstrable givens. Only the inhuman can begin according to its first principles because they are truly given. Thus Wordsworth bequeaths to a future being a set of axioms (by way of geometry and poetry), according to which, a form of reflexivity according to the “self” is actually possible.

Total Education

Immanuel Kant provides in his later essays a similar outline for making predictions regarding human progress. Conjectures cannot be utterly removed from “experience,” he says.²²⁹ Images of a future reality require certain conditions, which are nearly impossible to predict if they will be upheld or recur during the course of one’s life: “Therefore, an occurrence must be sought which points to the existence of such a cause and to its effectiveness in the human race, undetermined with regard to time, and which

²²⁸ Kant, *Correspondence*, trans. Arnulf Zweif (Cambridge: Cambridge University Press, 1999), designates space (as well as time) as the starting point for all understanding and locates it in human consciousness, an idea that he may have taken from his friend and mathematician, Johann Heinrich Lambert (February 3, 1766). Lambert’s purpose is actually to discriminate philosophy and mathematics, and the fact that Euclid does not begin with a definition of space or geometry is to his merit, for, according to Lambert, mathematics is superior to philosophy because the former employs analytic judgments only, or all the elements added are of the same kind (“homogenous” [86]). Indeed, so long as “the philosopher does not carry his analysis of measurable objects to the point where the mathematician can find unities, measures, and dimensions he must surely still be hanging on to some confusion, or at least the predicates of his propositions do not apply uniformly to the subjects.”

²²⁹ See the second part of “The Conflict of the Philosophy Faculty with the Faculty of Law,” from *The Conflict of the Faculties* in Immanuel Kant, *Religion and Rational Theology*, trans. and ed. Allen W. Wood and George di Giovanni (Cambridge: Cambridge University Press, 1996), 297-309, at 301.

would allow progress toward the better to be concluded as an inevitable consequence.”

Kant is after a particular, but ahistorical principle that would “allow progress toward the better.” Like Wordsworth’s Pedlar, Kant’s “historical sign”—his prophecy—is registered only as an “intimation,” and for its structure, indeed, he relies on the logic of the sublime:

To who does not consider what happens in just some one nation but also has regard to the whole scope of all the peoples on earth who will gradually come to participate in progress, this reveals the prospect of an immesasurable time – provided at least that there does not, by some chance, occur a second epoch of natural revolution which will push aside the human race to clear the stage for other creatures, like that which (according to Camper and Blumenbach) submerged the plant and animal kingdoms before human beings ever existed. For in the face of the omnipotence of nature, or rather its supreme first cause which is inaccessible to us, the human being is, in his turn, but a trifle. (304-5)

Kant describes a sublime turn, a transition from an overwhelming, war-ridden, and fragmented set of nations to a unified whole: an identity liberated from time. While Kant regards this logical turn as a principle outside of history, it can certainly be undermined by a disastrous catastrophe resulting in extinction.

But as Wordsworth demonstrates, the disastrous apocalypse of the future is the historical sign from which one develops a plan that would “allow progress toward the better.” Indeed, from this perspective, because human consciousness is not utterly relegated to a non-self-reflexive state, it maintains degrees and areas of participation that function as “accelerative and programmatic vectors in the direction of the aforementioned emancipation,” i.e. the emancipation of thought and feeling.²³⁰ Thus, despite the subsuming nature of industrialization and its progeny, the dynamics between capitalism and humanity affords the latter to assert itself by influencing the pace or speed of

²³⁰ “Drafting the Inhuman,” 188.

emancipatory dissolution, and thereby Reza Negarestani still sees the need for an “ethics or politics of praxis,” but from the perspective of human ends—hence the “necrocracy” in the title of his essay. Consequently, Negarestani asks in a more recent, qualifying essay, “what is it in the human that shapes the inhuman once it is developed in terms of entitlements and consequences?”²³¹ For Wordsworth the answer is an affective education.

In *The Excursion* Wordsworth responds to the signs of the times (the convergence of technics and physis) with a plan for universal education. The Solitary laments in the final book that human bodies continue to be sacrificed “wherever Man is made [...] a tool / Or implement, a passive Thing employed / As a brute mean, without acknowledgment / Of common right or interest in the end” (9.115-19).²³² Humans become mere means to ends unless, according to the Solitary, they learn to depend upon themselves. The Wanderer responds with a plea for national education: “Oh for the coming of that glorious time / When, prizing knowledge as her noblest wealth / And best protection, this Imperial Realm, / While she exacts allegiance, shall admit / An obligation, on her part, to *teach* / Them who are born to serve her and obey” (292-97). The order in which this proposal follows is important because it establishes that Wordsworth’s plan for education does not respond, as Alan Richardson has argued, exclusively to the “new rational pedagogies.”²³³ More broadly, Wordsworth sees education as responding to the

²³¹ “Labor of the Inhuman,” #*Accelerate: The Accelerationist Reader*, eds. Robin Mackay and Armen Avanessian (Windsor Quarry: Urbanomic Media, 2014), 427-466, at 429.

²³² See also the Solitary’s claim at 5.603-11, where he describes the body as overtaken by technics, which ultimately severs sensible and affective faculties. Noel Jackson examines this scene, focusing more on the relationship of the nervous system and the emotions, in *Science and Sensation in Romantic Poetry*, 140-5.

²³³ *Literature, Education, and Romanticism: Reading as Social Practice 1780-1832* (Cambridge: Cambridge University Press, 1994), 31. For a counter reading of Wordsworth’s educational plan, see

proliferation of an industrialized capitalism. Because one domain (education) responds to a seemingly remote one (economics), it is reasonable to assume that, for Wordsworth, these two regions of society were not regarded as altogether separate. Certainly, as his reading in physiocratic economics indicated—even if education was never mentioned—different arenas within the sociopolitical-economic body are interrelated through a series of feedback loops.²³⁴ Hence Wordsworth saw England's industrialism as having a direct impact on the minds and bodies of its citizens; in turn, he must have understood education as providing, at the very least, an indirect safeguard against techno-rationalist capitalism's crushing effects on the mind.

By today's standards, Wordsworth's turn to national education sounds more like his capitulation to the very system he was supposedly combatting. As part of the Wanderer's impassioned plea, he suggests that the only differences separating humans are human-made differences, and that they are fundamentally the same (9.208-211). Certainly, the Wanderer's characterization of "the human" fits Mary Poovey's suspicion that Scottish "conjectural history" (citing Hume) produced "*assertions*" regarding what could not be observed firsthand, couched in the belief that history accorded with "providential design," and that abstractions (like "the human mind") could satisfy the desire of inductive reason to ascertain a universal conclusion—ultimately producing assumptions "that human nature is everywhere the same," an assumption adopted from

Richard Grivil, "'Knowledge Not Purchased With the Loss of Power': Wordsworth, Pestalozzi and the 'Spots of Time,'" *European Romantic Review* 8, no. 3 (1997): 231-61.

²³⁴ For an expository reading of the modern interrelatedness of different disciplines, registers, and scales within the global economy, see Susan Buck-Morss, "Envisioning Capital: Political Economy on Display," *Critical Inquiry* 21, no. 2 (1995), 434-67.

“experimental moralists.”²³⁵ Accordingly, Poovey would group Wordsworth among “[eighteenth-century] British moral philosophers [who] sought to assimilate cultural otherness because, like the Newtonian natural philosophers whose method they emulated, they assumed that ‘facts’ emerged at the level of universals or abstractions, not individuals” (256). No doubt, prescribing a “one size fits all” educational plan would only eliminate the possibility for the different thoughts and feelings Wordsworth wanted to promote. Moreover, his plan sounds like a compromise when Wordsworth suggests that schools will teach the “discipline of virtue; order else / Cannot subsist, nor confidence, nor peace” (354-5). In this instance, education becomes discipline.²³⁶

And yet, when he makes the same turn towards education following an intimation of a future apocalypse (the “Arab Dream” sequence of the *Prelude*), Wordsworth recommends an educational path that includes, not the prescription of morals, but the conditions for eliciting a reflexive act from the pupil. In “these too industrious times,” says Wordsworth, the “mighty workmen” have attempted “with a broad highway” to overstep “The froward chaos of futurity” (5.293, 370-72). He refers here to educational theorists, but given the managerial character with which he describes their approaches to pedagogy, it is difficult to distinguish educator from political economist: “who in their prescience would control / All accidents, and to the very road / Which they have

²³⁵ “From Conjectural History to Political Economy,” *History of the Modern Fact: Problems of Knowledge in the Sciences of Wealth and Society* (Chicago: University of Chicago Press, 1998), 214-263, at 215-16.

²³⁶ Of course, to produce an entire argument around Wordsworth’s homogenizing characterization of “the human” at the end of *The Excursion* is to ignore the preceding eight books of individual examples and “case studies” explored in all the painstaking detail that a Romantic poet pays to a landscape. Such evidence is precisely of the kind that Poovey’s study is quick to downplay and in some cases ignore. For a forceful critique of Poovey’s study see Margaret C. Jacob, “Factoring Mary Poovey’s *A History of the Modern Fact*,” *History and Theory* 40.2 (2001), 280-89.

fashioned would confine us down / Like engines” (380-83). After describing the model student (the “Infant Prodigy”) of these educational theorists, Wordsworth counters this image with an educational plan to suit his more speculative inclinations. His plan emphasizes the role of literature because, Wordsworth says, when a child immerses himself within a book, “he forgets himself” (369). As an analogy, he turns to “the boy of Winander,” who experiences a “shock of mild surprize” in his calls to nature and nature’s reply (407). For Wordsworth, forgetfulness and surprise both have the effect of disrupting a consistent logical order in the thoughts and feelings of the mind, thus altering the conditions under which new thoughts or feelings might be affected upon recovery of the “I.” So at the end of the paragraph when Wordsworth espouses “Knowledge not purchased with the loss of power” (449), he means that education should not foreclose the mind’s ability to change, that any knowledge restricting the mind’s regard for new perspectives, information, or even flights of fancy is knowledge that defines the mind prematurely.

Taken together, Wordsworth’s turn to education in *The Prelude* represents his plea to include a reflexive principle within individual educational experiences; and his turn to education in *The Excursion* represents a plea to promote education for every human being. Thus Wordsworth seems to advocate a reflexive act on a large scale by way of education so as to incorporate this principle within a broader economic system, despite two different registers.

Certainly, the plan of *The Excursion* is less desirable without the plan of *The Prelude*, and yet each is individually consistent with the perspective from which Wordsworth outlines them. Wordsworth recommends in *The Excursion* a universal plan

immediately following his realization that the economy is epistemologically fragmented: the farmer, the soldier, and the industrialist are all working in isolation but are unknowingly contributing to the same, global economy. Thus Wordsworth wants to make everyone aware of everyone else. But Wordsworth recommends in *The Prelude* a personal plan immediately following his realization that the apocalypse will usher in an epistemologically unified whole (i.e. the inhuman). Thus Wordsworth wants everyone to learn according to his or her own way. Change the perspective, change the educational plan: Wordsworth moves from machine technology (*The Excursion*) to inhuman automation (*The Prelude*), and thus from standardization to emancipatory fragmentation.

Incidentally, Marshall McLuhan also ends *Understanding Media* with the shift from machine technology to automation's impact on education: "the social and educational patterns latent in automation are those of self-employment and artistic autonomy. Panic about automation as a threat of uniformity on a world scale is the projection into the future of mechanical standardization and specialism, which are now past" (311). Perhaps not past entirely. The point is that Wordsworth cannot consider education from a future retrospective position only (automation), nor can he observe it from the present alone (machine technology). Wordsworth thereby has much to offer current debates in leftist politics regarding capitalism and technology. Local and spontaneous actions ("folk politics" like Occupy Wall Street) are being critiqued for failure to provide a larger universal plan that would "liberate technologies away from their current purview of control and exploitation."²³⁷ The same critics see a need to depart from "the proletarianisation of humanity" and move towards "a transformed and newly

²³⁷ See Nick Srnicek and Alex Williams, *Inventing the Future: Postcapitalism and a World Without Work* (London: Verso, 2015), 179.

mutable subject” (180). An exigent need exists for literary works that propose a massive, modernist, synthetic project like “total education,” but with an ability to account for individual needs. Wordsworth offers such a solution in his dialectics of time, attempting to outline an ethics of praxis according to where humans were, where they are, and where they may (never) be. Consequently Wordsworth pleads for media that are as flexible as our temporal conditions, for once media become locked in place, the human is already defined—and obsolete.

Conclusion: Axiom

“Thinking has interests that do not coincide with those of living; indeed, they can and have been pitted against the latter.”

—Ray Brassier²³⁸

To my knowledge, no one has yet written on the fragment, “In Soft Warm Winter Mornings When the Snow.” Severed from the lyrical ballad, “Michael: a Pastoral Poem,” it depicts the patriarch Michael and his young son Luke on a walk through the woods and mountains. The snow had been falling all through the night, and so as they make their way through the hills, there is a sense that the shift from night to day has not been allowed to occur. Morning is not coming.

Wordsworth confirms this suspicion when the father stands in proximity to his son, who would “sometimes send / Forgetfulnesses through the father’s thoughts” and deprive him “of all purpose.”²³⁹ It is a scene that cannot be recognized, that will never be remembered, and yet, it is teeming with activity. Luke edges near the precipice of a valley and dislodges an “egg” of snow, the germ of innumerable, self-generating quantities of data (I use this term according to its modern usage, and not the Latin, “given thing”):

when the boy by chance
Or willfully had on some steep descent
Unsettled with his foot a tuft of snow
Small as a sparrow’s egg, which sliding down
Inch after inch, before a yard was gone
Had gather’d up a small round mass that split
With its own weight and made a hundred tufts

²³⁸ “Preface,” *Nihil Unbound*, xi.

²³⁹ *Lyrical Ballads*, 4-5, 7

Which taking each its several way did each
 collect a separate mass, which one and all
 Went bounding on, till in its turn each broke
 Into a thousand fragments, which branch'd off
 Splitting and gathering, till the mountain seem'd
 Raced over by a thousand living things,
 Ten thousand snow-white rabbits of the cliffs,
 At sight where of the lad would whoop for joy;
 And when the Race was ended he would point
 Down to the form of that gigantic tree
 Which far beneath them by the devious tracks
 Left by the Runners in that elfin race
 Had been impress'd upon the snow and lay
 With trunk beginning at the Lad's own feet
 And branches covering half the mountain side. (9-28)

Wordsworth describes discrete units, but their shape is swarm-like, too rapid and too many to count. In this state of mind, whatever fires between synapses or across the roots of a tree underlying the snowy surface of the mind, bits of data appear to multiply themselves infinitely within a finite container. And while the race seems to come to an end with the boy's deictic postulate, pointing to the tree and exclaiming "whoop," the infinities are not entirely lost, nor are they concretized into a definitive thought or feeling. The parameters are indeed felt but the feeling is, at long last, strange and awkward: "There with a mingled sentiment of love, / Authority and sympathy and blame, / The old Man stood spectator of this sight (29-31). The old man stands there, in a trance-like state, his mind flooded with a phantasmagoric procession of feelings. The repetition of "and" is a rhetorical device meant to signify an ongoing, simultaneous series (polysyndeton). Wordsworth attempts to capture the affective register or "prehension" of these infinities without reducing them entirely to a single feeling, figure, or definition. On the edge of the mountain, one act begets infinities, worlds that resist involution, incorporation, or synthesis.

Of course the dominant aim in Romanticism is to recuperate from this stage of infinite effusions. Hartman claims that the most “crucial” Romantic purpose to pursue was the exploration of the “transition from self-consciousness to imagination and to achieve that transition while exploring it.”²⁴⁰ Indeed, the gap Wordsworth embeds within his poetry ruptures the ideologically ensnared mind, transporting the unconscious reader into a seemingly severed state of self-consciousness. Prior to Romanticism, the reader would then attempt to recuperate that un-self-conscious state but in a “higher,” communal, and divine register by way of religion. With the eighteenth century and the emergence of Romanticism, that ironic move towards imagination can be found in the domain of poetry, which is more individual, subjective, and autonomous (305-6). Thus the poet returns to the human community.

But if “Soft Warm Winter Mornings” had been published as is, Wordsworth would have intimated the absence of a return, a non-self-reflexive form of construction. “Soft Warm Winter Mornings” is a figure of non-figuration. Speaking of the poetic power of selection/construction, Marjorie Levinson claims: “All speech—and certainly all poetry—[...] delineates arbitrarily, wantonly, a circle of significant representations and pretends to discover what it in fact produces by its curtailments,” and it is the lyric, “of course, [that] draws a tighter circle than most poetic forms.”²⁴¹ Levinson is right to say that poetry constructs a configuration that excludes real objects. But in producing “curtailments” poetry does something much more than would be expected. For every spot

²⁴⁰ “Romanticism and Anti-Self-Consciousness,” *Beyond Formalism: Literary Essays 1958-1970* (New Haven: Yale, 1970), 298-310, at 307.

²⁴¹ *The Romantic Fragment Poem*, 72.

selected to fill in for a sublime gap, the act of filling-in rather explodes than closes (or even “bifurcates”) the gap. The parts cut off in the act of selection always exceed the selection. Thus the fragment utterly disturbs the common sense of Euclid’s fifth axiom: the part becomes larger than the whole.

Wordsworth’s strange and awkward feelings refer to some other reality that cannot be experienced, cognized, or felt in a determinate or identifiable way. They evince a darker kind of thought, foreclosed to any picture-making mechanism.²⁴² And if their implications are pushed to their limit, this digression in Wordsworth’s logical order of thoughts and feelings takes a step beyond the synthetic conclusion common to Romanticism; it is a step towards a thought that sacrifices so-called “life.” According to Hartman:

The Romantic poets do not exalt consciousness per se. They have recognized it as a kind of death-in-life, as the product of a division in the self. The mind which acknowledges the existence or past existence of immediate life knows that its present strength is based on a separation from that life. A creative mind desires not mere increase of knowledge, but ‘knowledge not purchased by the loss of power’ (*Prelude* 5) [...] Consciousness is only a middle term, the strait through which everything must pass; and the artist plots to have everything pass through whole, without sacrifice to abstraction.²⁴³

²⁴² Gilles Deleuze, in *Difference and Repetition*, trans. Paul Patton (1968; New York: Columbia University Press, 1994), sought a kind of thought that could not be represented (147), and indeed, this leads him to consider a kind of “transcendental empiricism.” Accordingly, Deleuze is far more willing than his predecessors to give credit to “real” experiences, sense content, and so forth (rather than a “transcendental idea”), ultimately leading him—appropriately according to my understanding of propositions—to a meditation on “problems,” whose status he wants to elevate (I assume contra theorems). But, in an abrupt transition, he calls for an abandonment of Euclidean geometry in favor of non-Euclidean geometry because “we must move to a geometry of sufficient reason” (162). As far as I can tell, Deleuze is falling prey to his own critique at this juncture. Reasons are precisely what unrepresentable thoughts escape. At this stage I cannot claim to have a “command” of Deleuze’s work, but certainly his interest in “swarms” of thoughts may prove helpful in future research.

²⁴³ “Romanticism and Anti-Self-Consciousness,” 307.

If life is sacrificed for consciousness, consciousness is always reigned in for the sake of life. But in the lone case of “Soft Winter Mornings,” Wordsworth suggests a kind of thought that exceeds the poet’s attempts to recuperate knowledge without the loss of power, if by power Wordsworth means some sensible if not sentimental connection to “nature,” “glad animal movements,” or “life.” Wordsworth depicts the infinitesimal thoughts that swarm up through the cracks in the construction of “thought.”

To put pressure on such a scene may suggest the ultimate gesture towards solipsism, idealism, and every other –ism indicating a removal from and a lack of concern for others. Yet if it is real, if these gaps within consciousness are in fact teeming with infinities of non-thoughts for which, the best intimation of their existence is a feeling, perhaps they should be explored, especially if they are the by-products of poetry, selection/figuration, or *poiesis*. Still of what does such a non-thought consist? What does it do? And why should we care?

In book eleven of 1805 *Prelude* and book twelve of the 1850 edition, Wordsworth explores a different kind of figure that upsets any typical kind of order. I am referring to the famous “spots of time” passages but particularly to the last one out of a set of three, when following the death of the poet’s father, Wordsworth loses sight of his brothers on a journey through the neighboring fields of his home. There is a storm unfolding, “rough, and wild,” and so the young Wordsworth takes shelter by a fragment of a “naked wall,” high up on the “highest summit.” In Wordsworth’s poetry, to ascend to such a height usually establishes the conditions for a sublime moment, where with a prospect view, the observer attains an image of the whole surrounding scene. Furthermore, the architectural structure from which Wordsworth seeks shelter is fragmented, a wall only. The boy also

finds himself among strange company: “Upon my right hand was a single sheep, / A whistling hawthorn on my left.” He tells us that he must strain his eyes to see through the mist (361), and catches half a mile of a length of two roads intersecting, which contrast to the well-known “public road” of the following book whose “disappearing line” extends past the horizon to “eternity” (12.145-52). From one of these intersecting roads Wordsworth expects to see his approaching brothers, but from which one, “the choice [is] uncertain” (354). And above the lines of these roads there is a mist that advances in “indisputable shapes,” a small procession that does excites neither fear nor dread in the viewer (381).

The enumerated objects, the rain, the wind, the three companions huddled by the fragmented wall, the processional mist, the intersecting roads, and even the summit, none of which seem to lead anywhere or point to anything else in particular. The summit from which Wordsworth perceives this scene would appear to establish a hierarchy.²⁴⁴ But Wordsworth can hardly see through the mist. His company is fragile and shivering. And the architectural structure that marks this height does not excite fear or awe in the observer, nor does it signify a complete “picture of the mind”: the architecture is weirdly open. Wordsworth depicts the negative to Northrop Frye’s anagoric state, where all things refer to one another. Nor do we find here allegorical signs as described by de Man, where one object refers to a different and deferred idea. At this point, the scene appears to lack any organizing principle: all the things enumerated are simply present.

Wordsworth then explains his relationship to this image. Especially in the 1850 edition, the mind is drawn to this thought on winter nights, or when a storm pounds on

²⁴⁴ Jacqueline Labbe, in *Romantic Visualities: Landscape, Gender and Romanticism* (Basingstoke: Macmillan, 1998), xii, 36-65, outlines the authoritative and patriarchal implications of the sublime in Wordsworth.

his rooftop, or while on a walk though a grove, or when a strong wind picks up, and then “some working of the spirit, / Some inward agitations thence are brought, / Whate’er their office, whether to beguile / Thoughts over busy in the course they took, / Or animate an hour of vacant ease.” (12.331-35). These spots of time do not adhere to the logical association and organization of thoughts and feelings. Rather, the way he describes them in the *Prelude*, the spots of time intervene on the mind, but without any attempt to control the mind. The image rather “bumps” up against the phenomenal self, providing an intimation of its existence, at best—like one universe causing a ripple in a different, remote, impossibly connected universe.

Wordsworth reinforces the strangeness of this scene by way of the intersecting roads. On account of the figure’s non-corresponding existence, Wordsworth’s analogy of parallel lines in a sublime turn no longer captures the “relationship” between the mind and the spot of time. The dominant organization of consciousness fails to secure the figure in a locked position, necessarily connecting object A to feeling B. It is not a figure like Proclus’ lines and circles (it’s a spot!), nor does it function as a means of extending the soul nor drawing it back towards itself. The spot of time appears indifferent to the mind, interfering with it but without intention, reason, or purpose. It is not a thought “for” the mind. Furthermore, because this particular memory is unstable in its order, it anticipates the removal of Euclid’s fifth postulate, which determines that two lines that extend forever and never meet are parallel lines. Removing this axiom opened up the possibility for new and different kinds of constructions, and it is to this removed axiom

that the “non-” in non-Euclidean geometry refers (the same can be said for Laruelle’s non-philosophy).²⁴⁵

Thereby, a better figure to illustrate Wordsworth’s purpose is what Proclus calls “one of the most paradoxical theorems in geometry,” where parallel lines actually diminish the distance between each other while remaining parallel lines. They never actually touch or “they remain asymptotes,” but they nevertheless converge “upon one another, [yet they] never converge completely.”²⁴⁶ Or as he names the anomaly, it is an instance of “nonconvergent convergence.” In Wordsworth’s case, the spot of time would draw near and recede from the already set structure of the mind, converging with it but never to the point of synthesis. Thus the “spot of time,” in its non-correspondent relation to the “mind,” operates as a reminder that there is no mind, or that there are infinities of them, and to let go of this self-reflexive mind might usher in whole new worlds of constructions, figures, feelings, and so forth.²⁴⁷

But for an eighteenth and nineteenth century poet, such an image is difficult to bear. When the organizing principles of the mind’s architecture cannot unify with a thought, God must “[correct]” the scene (11.374). And so, before the final spot of time is concluded, Wordsworth “bow[s] low” to the deity in the ultimate idealist move, and relies on the mind of God to perceive all and thus restore even this renegade spot to a

²⁴⁵ For an explanation of non-philosophy and its affinity with non-Euclidean geometry see Rocco Gangle, *François Laruelle’s Philosophies of Difference: A Critical Introduction and Guide* (Edinburgh: Edinburgh University Press, 2013), 51-3.

²⁴⁶ *A Commentary*, 139.

²⁴⁷ Of the “self,” perhaps the last myth of Enlightenment humanism, Thomas Metzinger says that the “Ego [...] is simply the content of your [phenomenal self model] at this moment (your bodily sensations, your emotional state, your perceptions, memories, acts of will, thoughts). But it can become the Ego only because you are constitutionally unable to realize that all this is just the content of a simulation in your brain,” in *The Ego Tunnel: The Science of the Mind and the Myth of the Self* (New York: Basic, 2009), 8.

meaningful order. Nevertheless, Wordsworth comes very close in this scene to departing from that philosophical disposition that would have all things refer back to the mind, affirming human consciousness at the center of the universe, and gazing down on the world from up high, as if it were somehow entirely separate from it.

For what purpose though should such a purposeless, non-reflexive construction be investigated? If the propositional poem is indeed a kind of creative or performative poem, at which point does it mutate again, becoming increasingly less dependent on a human controller? At what point does human consciousness become an autonomous inhuman consciousness? At what point do poetry and geometry finally become one and the same? And at what point does a new, inhuman medium encounter a similar process of infinities of data overflowing at the parameters of “thought”? The point may have already passed.

Luciana Parisi studies a world where what is processed is or becomes:
 “*algorithms* are no longer or are not simply instructions to be performed, but have become performing entities: actualities that select, evaluate, transform, and produce data.”²⁴⁸ Contemporary architectural design software relies on a new brand of algorithms (which are basically modern day versions of Euclidean propositions, or an operation that follows a necessary step-by-step sequence) that not only “crunch” data in an identical sequence indefinitely, but also produce data. These algorithms are built on a “semiopen *architecture* of axioms, whereby existing postulates are there to be superseded by others that can transform infinite quantities into contingent probabilities” (x). Rather than an openness that merely signifies gaps “between” parts, Parisi describes a wholly new aesthetic mode, parametricism, which, like the aesthetic theories of the eighteenth

²⁴⁸ *Contagious Architecture: Computation, Aesthetics, and Space* (Cambridge: MIT Press, 2013), ix.

century, is a meditation on parts. Only these parts give way to additional parts: “These parts—in this case, parametric quantities in computational programming—are discrete entities that change values at different places according to different degrees of relations established by the program and the environmental input due not only to their capacity to select data that come from the actual ground, but also their capacity to be infected by data that they are not able to compute” (89). The algorithm can now receive external information that actually changes the fundamental structure of the algorithm itself, but cannot be regarded as data, as such. For the algorithms of today, “swarms” of data spillover out of the cracks of its architecture and the root of such openness is the belief that Euclid’s axiomatic method may not be a perfect or the only underlying logic of the mind and universe.

The open and indeterminate yet strangely mathematical world Wordsworth touches on in “Soft Warm Winter Mornings” and the “spots of time” can be seen explicitly in modern media and may come to represent a significant dimension of a new, inhuman generation. If our reading of Wordsworth’s inhuman reflexivity (“the stone and the shell”) is any indication of a sapient entity to come, in “Soft Warm Winter Mornings” and the spot of time, Wordsworth provides images of a non-self-reflexive dimension to Artificial Intelligence. The implications are important because, whereas the human brain does not in an empirical sense “create” every object that it thinks, the tables might turn for a medium whose “thoughts” are in fact its “objects.”

The strange figures Wordsworth delineates also point to a different way of thinking about modernity. David Lachterman, whose work has been an inspiration and a guide throughout this project, claims that modernity distinguishes itself from the Ancients

through the concept of construction. While this act of the imagination is rooted in ancient Greek geometry (Euclid's *Elements*), beginning with Descartes and Kant, and finding its apogee in Nietzsche, philosophy eventually extends the power of construction to its logical end so that "truth" becomes not a matter of knowing but of creating. One of the driving factors in this development is the belief that construction and "mastery" are bound together: to construct a "world" or "nature" is to control it. Not so, according to Parisi's description of the algorithm. While her study does not evince a "world in which rationality has been replaced by the arbitrariness of information," she does see a world in which "computational *randomness* corresponds to infinite volumes of data that are meaningful contingencies which refuse to be fully comprehended, compressed, or sensed by totalities" (ix-x). Therefore, if poetry and geometry are merging together in the body of the algorithm, this marriage does not fulfill the rationalist's dream of a single, determinate system; nor does it deny the rationalist's belief in an underlying mathematical universe. Rather, as Wordsworth's anomalous figures anticipate, the universe might be mathematical and undetermined.

Regardless of Wordsworth's anticipations and the innovations of modern media, for Ray Brassier, all paths lead to the same end. He insists that the heat death of the universe will ultimately bring about a final, final end to anything resembling human thoughts and feelings: "both life and mind will have to reckon with the disintegration of the ultimate horizon when, roughly one trillion, trillion, trillion (10^{1728}) years from now, the accelerating expansion of the universe will have disintegrated the fabric of matter itself, terminating the possibility of embodiment."²⁴⁹ Indeed, no thing will survive this

²⁴⁹ *Nihil Unbound*, 228.

“eternal and unfathomable blackness.” And really, can the human mind of today comprehend, much less care—really care—what happens even one million years from now? Still, philosophically speaking, (if a part can exceed the whole) the possibilities of an inhuman “mind” might just be endless enough to exceed any end that today we can understand. In brief, there are still horizons because there are horizons within horizons.

Works Cited

- Abrams, M.H. *Mirror and the Lamp: Romantic Theory and the Critical Tradition*. New York: Norton, 1953.
- . *Natural Supernaturalism: Tradition and Revolution in Romantic Literature*. New York: Norton, 1971.
- Albert, William. *The Turnpike Road System in England, 1663-1840*. Cambridge: Cambridge University Press, 1972.
- Alexander, Michelle. *The New Jim Crow: Incarceration in an Age of Colorblindness*. New York: The New Press, 2010.
- Allen, Stuart. *Wordsworth and the Passions of Critical Poetics*. New York: Palgrave, 2010.
- Averill, James. *Wordsworth and the Poetry of Human Suffering*. Ithaca: Cornell University Press, 1980.
- . "The Shape of the *Lyrical Ballads*." *Philological Quarterly* 60, no. 3 (1981): 387-407.
- Bacon, Francis. *The Advancement of Learning*. New York: Modern Library, 2001.
- Badiou, Alain. "Philosophy and Mathematics: Infinity and the End of Romanticism." In *Theoretical Writings*, translated by Ray Brassier and Alberto Toscano, 21-39. London: Continuum, 2004.
- Bain, Iain. "Note on Bewick's Engravings," to *A Memoir of Thomas Bewick, Written By Himself*, by Thomas Bewick. London: Oxford University Press, 1975.
- Bell, R.C. *Board and Table Games from Many Civilizations*. London: Oxford University Press, 1960.
- Berkeley, George. *The Works of George Berkeley, Bishop of Cloyne*. Edited by A.A. Luce and T.E. Jessop. 9 vols. London: Thomas Nelson, 1948.
- Bernhardt-Kabisch, Ernest. "The Stone and the Shell: Wordsworth, Cataclysm, and the Myth of Glaucus." *Studies in Romanticism* 23, no. 4 (1984): 455-90.
- Bewell, Alan. *Wordsworth and the Enlightenment: Nature, Man, and Society in the Experimental Poetry*. New Haven: Yale University Press, 1989.
- Bialostosky, Don H. *Wordsworth, Dialogics, and the Practice of Criticism*. Cambridge: Cambridge University Press, 1992.

- Blackwell, Bonnie. "The Pleasures of Geometry: Math and Melancholia in Rousseau's *Nouvelle Héloïse*." *European Romantic Review* 15, no. 1 (2006): 89-112.
- Bogart, Dan. "Turnpike Trusts and Property Income: New Evidence on the Effects of Transport Improvements and Legislation in Eighteenth-century England." *Economic History Review* 62, no. 1 (2009): 128-152.
- . "Neighbors, Networks, and the Development of Transport Systems: Explaining the Diffusion of Turnpike Trusts in Eighteenth-century England." *Journal of Urban Economics* 61 (2007): 238-262.
- Brassier, Ray. *Nihil Unbound: Enlightenment and Extinction*. New York: Palgrave, 2007.
- . "The View from Nowhere." *Identities: Journal for Politics, Gender and Culture* 8, no. 2 (2011): 7-23.
- Bredvold, Louis I. *The Intellectual Milieu of John Dryden*. Ann Arbor: University of Michigan Press, 1962.
- Broglio, Ron. *Technologies of the Picturesque: British Art, Poetry, and Instruments, 1750-1830*. Lewisburg: Bucknell University Press, 2008.
- . "The Romantic Cow: Animals as Technology." *The Wordsworth Circle* 36, no. 2 (2005): 48-52.
- Brown, Marshall. *Turning Points: Essays in the History of Cultural Expression*. Stanford: Stanford University Press, 1997.
- Buck-Morss, Susan. "Envisioning Capital: Political Economy on Display." *Critical Inquiry* 21, no. 2 (1995): 434-67.
- Burke, Kenneth. *Counter-Statement*. New York: Harcourt, 1931.
- . *The Philosophy of Literary Form: Studies in Symbolic Action*. New York: Vintage, 1957.
- Butt, John. *The Mid-Eighteenth Century*, edited by Geoffrey Carnall. Oxford: Clarendon Press, 1979.
- Caruth, Cathy. "Past Recognition: Narrative Origins in Wordsworth and Freud." *MLN* 100, no. 5 (1985): 935-48.
- Castle, Terry. *The Female Thermometer: 18th Century Culture and the Invention of the Uncanny*. New York: Oxford, 1995.

- Chai, Leon. *Romantic Theory: Forms of Reflexivity in the Revolutionary Era*. Baltimore: The Johns Hopkins University Press, 2006.
- Chandler, James. *Wordsworth's Second Nature: A Study of the Poetry and Politics*. Chicago: University of Chicago Press, 1984
- Clare, John. "Clare's Notes for his Autobiography." In *John Clare's Autobiographical Writings*, edited by Eric Robinson, 162-163. Oxford: Oxford University Press, 1983.
- Cohen, Ruth. "The 1800 Ordering of the *Lyrical Ballads*: Its Moral Purpose." *Caliban* 13 (1976): 31-44.
- Coleridge, Samuel Taylor. *The Collected Works of Samuel Taylor Coleridge*, ed. Barbara E Rooke, 16 vols. Princeton: Princeton University Press, 1969-2002.
- . *The Collected Letters of Samuel Taylor Coleridge*, edited by Earl Leslie Griggs. 4 vols. Oxford: Clarendon Press, 1959.
- . *The Notebooks of Samuel Taylor Coleridge*. Edited by Kathleen Coburn 3 vols. New York: Pantheon, 1957.
- Collings, David. *Wordsworthian Errancies: The Poetics of Cultural Dismemberment*. Baltimore: Johns Hopkins University Press, 1994.
- . "Emotion Without Content: Primary Affect and Pure Potentiality in Wordsworth." In *Romanticism and the Emotions*, edited by Joel Faflak and Richard C. Sha, 171-191. Cambridge: Cambridge University Press, 2014.
- . "After the Covenant: Romanticism, Secularization, and Disastrous Transcendence." *European Romantic Review* 21, no. 3 (2010), 345-361.
- Damasio, Antonio. *Looking for Spinoza: Joy, Sorrow, and the Feeling Brain*. Orlando: Harvest, 2003.
- Davies, Hugh Sykes. *Wordsworth and the Worth of Words*. Edited by John Kerrigan and Jonathan Wordsworth. Cambridge: Cambridge University Press, 1986.
- De Man, Paul. "The Rhetoric of Temporality." In *Interpretation: Theory and Practice*, 173-209. Edited by Charles S. Singleton. Baltimore: The Johns Hopkins University Press, 1969.
- De Mirabeau, Marquis. *The Oeconomical Table: An Attempt Towards Ascertaining and Exhibiting the Source, Progress, and Employment of Riches with Explanations, by the Friend of Mankind, the Celebrated Marquis de Mirabeau*. London, 1766.

- Deleuze, Gilles. *Difference and Repetition*, translated by Paul Patton. New York: Columbia University Press, 1994.
- Derrida, Jacques. *Of Grammatology*, translated by Gayatri Chakravorty Spivak. Baltimore: Johns Hopkins University Press, 1974.
- Donne, Benjamin. *An Essay on Mechanical Geometry*. Bristol 1796. ECCO.
- Douglas, George. *The Elements of Euclid in which the Propositions are demonstrated in a new and shorter Manner than in former Translations, and the Arrangement of many of them altered*. Edinburgh: n.p., 1776. ECCO.
- Dunlop, Katherine. "What Geometry Postulates: Newton and Barrow on the Relationship of Mathematics to Nature." In *Interpreting Newton: Critical Essays*, edited by Andrew Janiak and Eric Schliesser, 69-101. Cambridge: Cambridge University Press, 2012.
- Ennis, Daniel. *Enter the Press-Gang: Navel Impressment in Eighteenth-Century British Literature*. Newark: University of Delaware Press, 2002.
- Engell, James. "Coleridge and German Idealism: First Postulates, Final Causes." In *The Coleridge Connection: Essays for Thomas McFarland*, edited by Richard Gravil and Molly Lefebure, 153-77. London: Macmillan Press, 1990.
- Evans, Murray J. "Coleridge as Thinker: *Logic and Opus Maximum*." In *The Oxford Handbook to Samuel Taylor Coleridge*. Edited by Frederick Burwick, 323-341. Oxford: Oxford University Press, 2009.
- Eves, Howard, and Carroll V. Newsom. *An Introduction to the Foundations and Fundamental Concepts of Mathematics*. New York: Holt, Rinehart and Winston, 1965.
- Faflak, Joel and Richard C. Sha, "Introduction." In *Romanticism and the Emotions*, edited by Joel Faflak and Richard C. Sha, 1-18. Cambridge: Cambridge University Press, 2014.
- Favret, Mary. *War at a Distance: Romanticism and the Making of Modern Wartime*. Princeton: Princeton University Press, 2010.
- Fielding, Henry. *Rape Upon Rape; Or, the Justice Caught in his own Trap*. London: J. Wats, 1730. ECCO.
- Fink, Z.S. "The Essay," in *The Early Wordsworthian Milieu: A Notebook of Christopher Wordsworth with a Few Entries by William Wordsworth*, ed. Zera Silver Fink, 1-73. Oxford: Clarendon Press, 1958.

- Fraistat, Neil. *The Poem and the Book: Interpreting Collections of Romantic Poetry*. Chapel Hill: University of North Carolina Press, 1985.
- Frank, Manfred. *What is Neostructuralism?* Translated by Sabine Wilke and Richard Gray. Minneapolis: University of Minnesota Press, 1989.
- Fry, Paul. *The Poetry of What We Are*. New Haven: Yale University Press, 2008.
- Frye, Northrop. *Anatomy of Criticism*. Princeton: Princeton University Press, 1957.
- Foucault, Michel. *Discipline and Punish: The Birth of the Prison*. Translated by Alan Sheridan. New York: Vintage, 1979.
- Gammon, Earl. "Nature as Adversary: The Rise of Modern Economic Conceptions of Nature," *Economy and Society* 39, no. 2 (2010): 218-246.
- Gangle, Rocco. *Francois Laruelle's Philosophies of Difference: A Critical Introduction and Guide* Edinburgh: Edinburgh University Press, 2013.
- Gaukroger, Stephen. *The Collapse of Mechanism and the Rise of Sensibility: Science and the Shaping of Modernity, 1680-1760*. Oxford: Oxford University Press, 2010.
- Gibbon, Edward. *The History of the Decline and Fall of the Roman Empire*. Edited by Dean Milman, M. Guizot, and William Smith. 6 vols. New York: Harper, 1880.
- Gravil, Richard. "Knowledge Not Purchased With the Loss of Power": Wordsworth, Pestalozzi and the 'Spots of Time.'" *European Romantic Review* 8, no. 3 (1997): 231-61.
- Gudeman, Stephen. *Economics as Culture: Models and Metaphors of Livelihood*. London: Routledge, 1986.
- Gurton-Wachter, Lily. "'Ever on Watch': Wordsworth's Attention." *Studies in Romanticism* 52, no. 4 (2013): 511-535.
- Halmi, Nicholas. *The Genealogy of the Romantic Symbol*. Oxford: Oxford University Press, 2007.
- Harris, James. *Hermes; Or a Philosophical Inquiry Concerning Universal Grammar*. John Nourse, 1765. ECCO.
- Hartley, David. *Observations on Man, His Frame, His Duty, and His Expectations*. Gainesville: Scholars' Facsimiles and Reprints, 1966.
- Hartman, Geoffrey. *Wordsworth's Poetry: 1787-1814*. New Haven: Yale University Press, 1964.

- . *Beyond Formalism: Literary Essays 1958-1970*. New Haven: Yale, 1970.
- Heath, Sir Thomas L. "Introduction." In *The Thirteen Books of the Elements*, 3 vols. 1.1-151. New York: Dover, 1956.
- Heffernan, James. "Wordsworth, Coleridge, and Turner: The Geometry of the Infinite." *The Bucknell Review* 29, no. 1 (1984): 49-72.
- Heidegger, Martin. *The Question Concerning Technology and Other Essays*, translated by William Lovitt. New York: Harper and Row, 1977.
- Howell, Wilbur Samuel. *Poetics, Rhetoric, and Logic: Studies in the Basic Disciplines of Criticism*. Ithaca: Cornell University Press, 1975.
- . *Eighteenth-Century British Logic and Rhetoric*. Princeton: Princeton University Press, 1971.
- Howson, Geoffrey. *A History of Mathematics Education in England*. Cambridge: Cambridge University Press, 1982.
- Hoyle. *A Short Treatise on the Game of Whist. Containing the Laws of the Game: And also Some Rules, whereby a Beginner may, with due Attention to them, attain to the Playing it Well [...] Calculations directing with moral Certainty, how to play well any Hand or Game, by Shewing the Chances of your Partner's having 1 2 or 3 certain cards*. London, 1743. ECCO.
- Hutton, Charles. *A Course of Mathematics in Two Volumes, Composed and More Especially Designed, For the Use Of the Gentlemen Cadets in the Royal Military Academy at Woolwich*. London, 1799. ECCO.
- Jackson, H.J. "Coleridge's Lessons in Transition: The 'Logic' of the 'Wildest Odes.'" *Lessons of Romanticism: A Critical Companion*. Edited by Thomas Pfau and Robert Gleckner, 213-224. Durham: Duke University Press, 1998.
- Jackson, Noel. *Science and Sensation in Romantic Poetry*. Cambridge: Cambridge University Press, 2008.
- Jacob, Margaret C. "Factoring Mary Poovey's *A History of the Modern Fact*." *History and Theory* 40, no. 2 (2001): 280-89.
- Jacobus, Mary. *Romanticism, Writing, and Sexual Difference: Essays on The Prelude*. Oxford: Clarendon Press, 1989.
- Jennings, Humphrey ed., *Pandaemonium: 1660-1886: The Coming of the Machines as Seen by Contemporary Observers*. London: Icon, 2012.

- Johnson, Lee M. *Wordsworth's Metaphysical Verse: Geometry, Nature, and Form*. Toronto: University of Toronto Press, 1982.
- Johnston, Adrian. "Slavoj Žižek's Hegelian Reformation: Giving a Hearing to *The Parallax View*." Review of *The Parallax View*, Slavoj Žižek. *Diacritics* 37, no. 1, (2007): 3-20.
- Jones, Matthew. *The Good Life in the Scientific Revolution: Descartes, Pascal, Leibniz and the Cultivation of Virtue*. Chicago: University of Chicago Press, 2006.
- Kallich, Martin. "The Association of Ideas and Critical Theory: Hobbes, Locke, and Addison." *ELH* 12, no. 4 (1945): 290-315.
- Kames, Henry Home, Lord. *The Elements of Criticism*, 2 vols. Edinburgh, 1785. *ECCO*.
- Kant, Immanuel. *Critique of Judgment*. Translated by J.H. Bernard. New York: Hafner Press, 1951.
- . *The Conflict of the Faculties* in Immanuel Kant, *Religion and Rational Theology*, translated and edited by Allen W. Wood and George di Giovanni. Cambridge: Cambridge University Press, 1996.
- . *Correspondence*, translated by Arnulf Zweif. Cambridge: Cambridge University Press, 1999.
- Kelley, Theresa. *Reinventing Allegory*. Cambridge: Cambridge University Press, 1997.
- . *Wordsworth's Revisionary Aesthetics*. Cambridge: Cambridge University Press, 1988.
- . "Spirit and Geometric Form: The Stone and the Shell in Wordsworth's Arab Dream." *SEL* 22 (1982): 563-582.
- Khalip, Jacques. "The Ruin of Things." *Romantic Circles Praxis Series*, edited by Theresa Kelley (2011).
- Kipling, Charlotte. "A Note on Wordsworth's Mathematical Education," *The Charles Lamb Bulletin*, 59 (1987): 96-102.
- Kristeva, Julia. "The Bounded Text." In *Desire in Language: A Semiotic Approach to Literature and Art*, edited by Leon S. Roudiez, and translated by Thomas Gora, Alice Jardine, and Leon S. Roudiez, 36-63. New York: Columbia University Press, 1980.
- Labbe, Jacqueline. *Romantic Visualities: Landscape, Gender and Romanticism*. Basingstoke: Macmillan, 1998.

- Lachterman, David Rapport. *The Ethics of Geometry: A Genealogy of Modernity*. New York: Routledge, 1989.
- Langan, Celeste. *Romantic Vagrancy: Wordsworth and the Simulation of Freedom*. Cambridge: Cambridge University Press, 1995.
- Laruelle, François. *Philosophies of Difference*, translated by Rocco Gangle. London: Bloomsbury, 2010.
- Lefebvre, Henri. *Rhythmanalysis: Space, Time, and Everyday Life*. Translated by Stuart Elden and Gerald Moore. New York: Continuum, 2004.
- Legouis, Émile. "Some Remarks on the Composition of the *Lyrical Ballads* of 1798." In *Wordsworth and Coleridge: Studies in Honor of George McLean Harper*, edited by Earl Leslie Griggs. New York: Russell & Russell, 1962.
- Levinson, Marjorie. "A Motion and a Spirit: Romancing Spinoza." *Studies in Romanticism* 46, no. 4 (2007): 367-408.
- . *The Romantic Fragment Poem: A Critique of a Form*. Chapel Hill: The University of North Carolina Press, 1986.
- Leyburn, Ellen Douglass. "Berkeleyian Elements in Wordsworth's Thought." *The Journal of English and German Philology* 47, no. 1 (1948): 14-28.
- Lindstrom, Eric. *Romantic Fiat: Demystification and Enchantment in Lyric Poetry*. New York: Palgrave, 2011.
- Locke, John. *An Essay Concerning Human Understanding*, edited by Peter H. Nidditch. Oxford: Oxford University Press, 1979.
- Loyd, Charles. *Poems on Various Subjects*. London: F. Jolie, 1795. *ECCO*.
- Mackenzie, Adrian. *Transductions: Bodies and Machines at Speed*. London: Continuum, 2002.
- Mackenzie, Henry. *The Castle of Otranto and The Man of Feeling*, edited by Laura Mandell. New York: Longman, 2007.
- Magnani, Lorenzo. *Philosophy and Geometry: Theoretical and Historical Issues*. Dordrecht: Kluwer Academic Publishers, 2001.
- Malton, Thomas. "Preface" to *The New Royal Road to Geometry and Familiar Introduction to the Mathematics*, part. 1. London: Charles Dilly, 1793. *ECCO*.

- Mayo, Robert. "The Contemporaneity of the *Lyrical Ballads*." *PMLA* 69, no. 3 (1954): 486-522.
- McGrath, Brian. *The Poetics of Unremembered Acts: Reading, Lyric, Pedagogy*. Evanston: Northwestern University Press, 2013.
- McLane, Maureen. *Balladeering, Minstrelsy, and the Making of British Romantic Poetry*. Cambridge: Cambridge University Press, 2008.
- McLuhan, Marshall. *Understanding Media: The Extensions of Man*. New York: Signet, 1964.
- Meek, Ronald, L. *The Economics of Physiocracy: Essays and Translations*. Cambridge: Harvard University Press, 1963.
- Meillassoux, Quentin. *After Finitude: An Essay on the Necessity of Contingency*. Translated by Ray Brassier. London: Continuum, 2008.
- Metzinger, Thomas. *The Ego Tunnel: The Science of the Mind and the Myth of the Self*. New York: Basic, 2009.
- Mileur, Jean-Pierre. "Allegory and Irony: 'The Rhetoric of Temporality' Re-Examined." *Comparative Literature* 38, no. 4 (1986), 329-336.
- Miller, Christopher. "Wordsworth's Anatomies of Surprise." *Studies in Romanticism* 46, no. 4 (2007): 409-431.
- Modiano, Raimonda. "Humanism and the Comic Sublime: From Kant to Friedrich Theodor Vischer." *Studies in Romanticism* 26, no. 2 (1987): 231-244.
- . *Coleridge and the Concept of Nature*. London: Macmillan, 1985.
- Montgomery, James. "Poems. In Two Volumes." In *The Romantics Reviewed: Contemporary Reviews of British Romantic Writers*, edited by Donald H. Reiman, 333-337. New York: Garland Publishing, 1972.
- Moorman, Mary. *William Wordsworth: The Early Years, 1770-1803*. Oxford: Clarendon Press, 1957.
- Nassar, Dalia. *The Romantic Absolute: Being and Knowing in Early German Romantic Philosophy, 1795-1804*. Chicago: Chicago University Press, 2014.
- Negarestani, Reza. "Drafting the Inhuman: Conjectures on Capitalism and Organic Necrocracy." In *The Speculative Turn: Continental Materialism and Realism*, edited by Levi Bryant, Nick Srnicek, and Graham Harman, 182-201. Melbourne: re.press, 2011.

- . "Labor of the Inhuman." In *#Accelerate: The Accelerationist Reader*, edited by Robin Mackay and Armen Avanessian, 427-466. Windsor Quarry: Urbanomic Media, 2014.
- Nietzsche, Friedrich. *Twilight of the Idols*, translated by Duncan Large. Oxford: Oxford University Press, 1998.
- O'Donnell, Brennan. *The Passion of Meter: A Study of Wordsworth's Metrical Art*. Kent: Kent State University Press, 1995.
- Ong, Walter J. *Ramus: Method and the Decay of Dialogue: From the Art of Discourse to the Art of Reason*. Cambridge: Harvard University Press, 1958.
- . "Psyche and the Geometers: Aspects of Associationist Critical Theory." *Modern Philology* 49, no.1 (1951): 16-27.
- Parisi, Luciana. *Contagious Architecture: Computation, Aesthetics, and Space*. Cambridge: MIT Press, 2013.
- Plato. *Complete Works*, edited by John Cooper. Indianapolis: Hackett, 1997.
- Plotnitsky, Arkady. "Mathematics and Experimentation in Art, Philosophy, and Mathematics and Science: Riemann, Kandinsky, Heisenberg, and Deleuze and Guattari." Paper presented at the Annual Meeting of the Society for Literature, Science and the Arts, Notre Dame, IN, October, 2013.
- Poovey, Mary. *History of the Modern Fact: Problems of Knowledge in the Sciences of Wealth and Society*. Chicago: University of Chicago Press, 1998.
- Proclus. *A Commentary on the First Book of Euclid's Elements*, translated by Glenn R. Morrow. Princeton: Princeton University Press, 1970.
- Rea, John D. "Coleridge's Intimations of Immortality from Proclus." *Modern Philology* 26, no. 2 (1928): 201-213.
- Redfield, Marc. "Wordsworth's Dream of Extinction." *Qui Parle* 21, no. 2 (2013): 61-68.
- Revard, Stella P. *Pindar and the Renaissance Hymn-Ode: 1450-1700*. Tempe: Arizona Center for Medieval and Renaissance Studies, 2001.
- Review of "The Oeconomical Table, an Attempt Towards Ascertaining and Exhibiting the Source, Progress, and Employment of Riches,-with Explanations," *The Monthly Review, or Literary Journal* 34 (May, 1766), 400-1. *ECCO*.

- Richards, Joan. *Mathematical Visions: The Pursuit of Geometry in Victorian England*. Boston: Academic Press, 1988.
- Richardson, Alan. *Literature, Education, and Romanticism: Reading as Social Practice 1780-1832*. Cambridge: Cambridge University Press, 1994.
- Roberts, John Russell. *A Metaphysics for the Mob: The Philosophy of George Berkeley*. Oxford: Oxford University Press, 2007.
- Rousseau, Jean-Jacques. *Emile; or On Education*, translated by Allan Bloom. New York: Basic Books, 1979.
- . *Discourse on the Origin of Inequality*, translated by Donald A. Cress. Indianapolis: Hackett, 1992.
- Schelling, F.W.J. *Philosophical Investigations into the Essence of Human Freedom*. Translated by Jeff Love and Johannes Schmidt. Albany: SUNNY Press, 2006.
- Schneider, Ben Ross. *Wordsworth's Cambridge Education*. Cambridge: Cambridge University Press, 1957.
- Shaffer, Elinor. "The 'Postulate in Philosophy' in the 'Biographia Literaria,'" *Comparative Literature Studies* 7, no. 3 (1970): 297-313.
- Shenstone, William. "A Prefatory Essay on Elegy." *The Works, in Verse and Prose of William Shenstone, Esq.*, 3 vols. London: J. Dodsley, 1777. ECCO.
- Simpson, David. *Wordsworth, Commodification, and Social Concern*. Cambridge: Cambridge University Press, 2007.
- . "Romanticism, Criticism, and Theory." In *The Cambridge Companion to British Romanticism*, edited by Stuart Curran, 1-24. Cambridge: Cambridge University Press, 2006.
- . *Wordsworth: Figurings of the Real*. London: Macmillan Press, 1982.
- Simson, Robert. "Preface" in *The Elements of Euclid viz. The First Six Books together with the Eleventh and Twelfth*. Edinburgh: Wingrove and Balfour, 1793. ECCO.
- Smith, Adam. *The Essential Adam Smith*, edited by Robert L. Heilbroner. New York: Norton, 1986.
- Smith, Anthony Paul. "'Will Nothing Ever Be With Nothing Ever Again?': The Theological Construction of Personhood and Its Negation within the Limits of Race Alone," 1. Podcast audio. *My Name Is My Name w/ APS*. Last modified May 8, 2014.

- Srnicek, Nick and Alex Williams, *Inventing the Future: Postcapitalism and a World Without Work*. London: Verso, 2015.
- Stiegler, Bernard. *Technics and Time, 1: The Fault of Epimetheus*. Translated by Richard Beardsworth and George Collins. Stanford: Stanford University Press, 1998.
- Stoddart, John, "Art. VI. *Lyrical Ballads, with other Poems: in Two Vols.*" In *The Romantics Reviewed: Contemporary Reviews of British Romantic Writers*, edited by Donald H. Reiman, 131-134. New York: Garland Publishing, 1972.
- Sullivan, Brad. *Wordsworth and the Composition of Knowledge: Refiguring Relationships Among Minds, Worlds, and Words*. New York: Peter Lang, 2000.
- Swift Jonathan. *Fact and Feeling: Baconian Science and the Nineteenth-Century Literary Imagination*. Madison: University of Wisconsin Press, 1994.
- Thomas-Stanford, Charles. *Early Editions of Euclid's Elements*. London: The Bibliography Society, 1926.
- Turgot, Anne Robert Jacques. *Reflections on the Formation and the Distribution of Riches*. New York: Macmillan, 1911.
- Vardi, Linda. *The Physiocrats and the World of the Enlightenment*. Cambridge: Cambridge University Press, 2012.
- Vattimo, Gianni. "Dialectics, Difference, and Weak Thought." *Graduate Faculty of Philosophy Journal* 10 no. 1 (1994): 151-164.
- Virilio, Paul. *Speed and Politics: An Essay on Dromology*, translated by Mark Polizzotti. New York: Semiotext(e), 1986.
- Watson, J.R. "Wordsworth's Card Games." *The Wordsworth Circle* 6, no. 3 (1975): 299-302.
- Watts, Isaac. *The Improvement of the Mind, or a Supplement to the Art of Logic*. London, 1798. ECCO.
- Webb, Sidney and Beatrice. *English Local Government: The Story of the King's Highway*. New York: Longmans, 1913.
- Wiley, Michael. "'No Place on Earth / Can Ever Be a Solitude': *Lyrical Ballads*, Hartleianism, and a World of Places," in *Global Romanticism*, edited by Evan Gottlieb, 81-93. Lewisburg: Bucknell University Press, 2015.

- Winthrop-Young, Geoffrey and Michael Wulz. "Introduction" in Friedrich A. Kittler, *Gramophone, Film, Typewriter*, translated by Geoffrey Winthrop-Young and Michael Wulz, xvi-xx. Stanford: Stanford University Press, 1999.
- Wood, David W. *'Mathesis of the Mind': A Study of Fichte's Wissenschaftslehre and Geometry*. Fichte-New York: Rodopi, 2012.
- Wordsworth, Jonathan. *William Wordsworth: The Borders of Vision*. Oxford: Clarendon Press, 1982.
- Wordsworth, William. *The Prelude, 1799, 1805, 1850*, edited by Jonathan Wordsworth, M.H. Abrams, and Stephen Gill. New York: Norton, 1979.
- . *Lyrical Ballads*, edited by James Butler and Karen Green. Ithaca: Cornell University Press, 1992.
- . *The Excursion*, edited by Sally Bushell, James Butler, and Michael C. Jaye. Ithaca: Cornell University Press, 2007.
- . *The Ruined Cottage and The Pedlar*, edited by James Butler. Ithaca: Cornell University Press, 1979.
- . *The Prose Works of William Wordsworth*, edited by W.J.B. Owen and Jane Worthington Smyser. 3 vols. Oxford: Clarendon Press, 1974.
- . *The Letters of William and Dorothy Wordsworth: The Early Years 1787-1805*, edited by Chester L. Shaver and Ernest de Selincourt. Oxford: Clarendon Press, 1967.
- Wu, Duncan. *Wordsworth's Reading: 1770-1799*. Cambridge, Cambridge University Press, 1993.
- Yousef, Nancy. *Romantic Intimacy*. Stanford: Stanford University Press, 2013.
- Žižek, Slavoj. *The Sublime Object of Ideology*. London: Verso, 2008.
- . *Violence*. New York: Picador, 2008.
- . *Tarrying With the Negative*. Durham: Duke University Press, 1993.