One of the ironies of poststructuralism’s critique of logocentrism, a project that has the potential to progressively deconstruct anthropocentric subjectivity, is that it often fails to fully actualize this potential due to a problematic conflation of materiality and linguistic *différance*. A critical focus on language as the chief means of subverting dominant paradigms frequently has the effect of rewriting the subject as an ideally free-floating “text” existing in a purely cultural field, independent from, yet simultaneously constructing the material world via language games. Contemporary critics such as Brian Massumi observe that in the process a certain “cultural solipsism” is inadvertently reproduced whereby nonhuman domains (and subjects) are seen as significant *only* in terms of how they are linguistically constructed by humans.¹ Thus, “theoretical moves aimed at ending the Human end up making human culture the measure and meaning of all things, in a kind of unfettered anthropomorphism” (Massumi, 100). During the past decade, dissatisfaction with unresolved traces of philosophical idealism in poststructuralist thought has been fueled by a growing awareness of ecological decline occurring in the earth’s physical biosphere. Global warming, melting of the polar icecaps and glaciers, ozone depletion, unprecedented extinction rates in nonhuman species, and explosive human population growth all seem to demand more sustainable constructions of “nature” and materiality that do not simply construe the real as a domain that is wholly determined by human beings but that in turn has no appreciable effect on the evolution of culture. This is not to advocate an unmediated bridging of the gap between material and linguistic systems, what Paul de Man associates with the unifying impulse of the symbolic in *Blindness and Insight*. Rather, this essay
will explore Niklas Luhmann’s theory of communication as a possible framework for thinking issues of materiality that avoids the extremes of absolute constructivism on the one hand and naive realism on the other. Today’s ecocritics must find more productive ways to address language’s constitutive role in establishing the contours of meaning even as they maintain that signs do not exhaust (or fully determine) our ways of experiencing nature as an “outside” to communication systems. As a complex account of communication’s auto-poiesis (self-generation) in response to potentially infinite ways of processing meaning in the world, systems theory provides not so much an escape from the “prison house” of language as a way to rethink its limits, the way linguistic closure necessitates blindness and multiple observation but also leaves open the world as a material domain that necessarily exceeds our cultural constructions.2

Furthermore, a systems-theoretical approach to communication sheds new light on an already existing discourse that addresses the limit between language and its outside: the romantic sublime. As one of the most famous (and infamous) articulations of the boundary between culture and nature in the modern era and the project of bridging this divide, it is not surprising that critics have frequently turned to this aesthetic as evidence of a proto-ecological awareness among nineteenth-century poets. Jonathan Bate, for example, considers the romantic sublime to be ecologically progressive because, as evidenced in Wordsworth’s poetry, it succeeds in its aim to unproblematically bridge human culture and nature, language and its material referent. During the early nineties, Bate called for a re-evaluation of the romantic sublime as an ethos that could provide contemporary society with an ethical grounding for environmental praxis. In “Toward Green Romanticism,” he claims that nature today must be regarded as it was by the Romantics, “with wonder and reverence, not rapaciousness” (67). In this regard, he feels the romantic sublime is instructive because it “conveys a sense of the insignificance, the smallness, of man. It offers a necessary humbling, a first step toward the knowledge that humankind is not self-sufficient.” Unfortunately, this reading overlooks the fact that what might be termed the “anthropocentric sublime” operating in Wordsworth’s texts represents a dialectic wherein the subject is only temporarily “humbled” before nature; the second moment in this exchange is
typically one in which the subject’s mind and/or imagination is exalted above nature, transcending anything it encounters in the material world. As Marjorie Levinson puts it in “Pre- and Post-Dialectical Materialisms: Modeling Praxis without Subjects and Objects,” this articulation of the sublime “supports the wide range of discourses associated with the project of modernity” in that it “features the profitable transformation of nature and matter by a human . . . agency which is both materially empowered by this process and refined into ever increasing self-awareness and self-possession” (114). Seen through the framework of Luhmannian systems theory, the anthropocentric sublime is ultimately self-reflexive insofar as it attempts to thematize the consciousness of isolated individuals (psychic systems) and paradoxically employs incommunicability as a way of reproducing communication. In this way, the deployment of the sublime in first-generation romantic poetry signals not so much the mind’s successful union with nature but the growing autonomy of art as a social system in the age of modernity. This growing autonomy, however, is counterbalanced in early romantic texts by what de Man calls a “nostalgia for the natural object,” a drive to restore a sense of knowable linguistic origin to language that mirrors the self-evident origin of natural objects (”Intentional Structure,” 6). This essentially religious impulse to unify nature and language under the authority of a transcendental signified not only motivates Wordsworth’s quest to see in nature the image of a “mighty mind . . . that feeds upon infinity” in The Prelude (lines 70–71 in book 13 of 1805 version) but also informs Coleridge’s invocation of nature’s “voice” as an echo of the Divine in poems like “Hymn before Sun-rise, in the Vale of Chamouni.” Hence, in the anthropocentric sublime, nature is represented as something that essentially gratifies human needs (either as a foil for the imagination or something that functions analogously to the Book of God) and is denied a material autonomy beyond human desire or use value. As such, this mode of sublimity can hardly provide an ethical grounding for more responsible environmental praxis.

But there is another aspect of sublimity that may be ironically “useful” to ecological thinking: silence. It is no coincidence that silence figures prominently in ecocriticism, as it has in criticism that seeks to restore voice to modernity’s silenced others. However, there is something to be said for silence as positive withholding, as a mode
of resistance to communication’s codifications. That is, the sublime can also trace the limits of communication within a world whose complexity resists finite reduction to the operation of meaning-processing systems. Within the permanent barrier of language, the sublime can articulate the horizon between communication systems and the world as material presence outside communication systems, or what might be called the “sublimity of materiality.” Unlike the anthropocentric sublime, this form of communication does not seek to unify mind and nature under the sign of a subject who transcends materiality but rather delineates the mystery of materiality itself, what Shelley calls “the naked countenance of earth” embodied in “Mont Blanc”’s “primæval mountains” (lines 98–99). That the project of articulating this “outside” undertaken by later romantics like Shelley must necessarily fail on a symbolic level is, from an ecological perspective, ironically successful in the sense that it communicates materiality as a surplus of meaning potential that cannot be exhausted by linguistic performance. Ultimately, this sublime attests to the fullness of the world, but only by enacting what language lacks, how meaning processing necessitates difference, how difference divides the world into material and communicative domains. In this regard, the Shelleyan sublime significantly revises the anthropocentric sublime in earlier romantic texts by employing developments within the social system of science to further differentiate artistic communication from other modes of discourse, particularly religious communication. As such, this discourse approaches what de Man calls “the pure materiality of . . . aesthetic vision” (“Phenomenality,” 89) described in Kant’s Critique of Judgment, but not via “the material disarticulation . . . of nature [and of] the body.” In de Man’s interpretation of the Kantian sublime, the “dismemberment” of nature as an articulated body corresponds to the fragmentation of language as a unified field via a process that heralds the failure of the aesthetic, its “fall” from referential grace. Systems theory, in contrast, does not claim that the disunity of modern social systems necessitates a corresponding dismemberment of natural or bodily domains; in fact, language’s “fall” from the symbolic is fortunate insofar as it heralds an age that does not presume that the real is wholly determined by discourse, or, in de Man’s parlance, that “the bottom line . . . is the prosaic materiality of the letter” (90).
THE ANTHROPOCENTRIC SUBLIME AND AUTOPOIETIC COMMUNICATION

The first wave of romantic poets heralded the sublime as a discourse intended to close the gap between the human mind and nature. The historical causes of this rift were many, including the rise of humanist subjectivity and of modern science. Ostensibly responding to the new science’s mechanistic view of nature as a domain of dead objects to be exploited by modern man, Wordsworth relates his poetry’s central argument in the “Prospectus” to The Recluse: namely, to show why nature is a realm uniquely “fitted” to the human mind, as the mind is to the external world. According to M. H. Abrams in Natural Supernaturalism, Wordsworth’s intent is nothing less than to “unite our minds to the outer universe in a holy marriage, a passionate love match” (27) and thus to restore earthly paradise to a world increasingly ravaged by industrialization. But today’s critic would do well to ask whether both partners in this “marriage” are equal in the poet’s representations, or whether one partner is more equal than the other. We should observe, with Abrams, that Wordsworth’s project here is strikingly similar to Bacon’s aim in the Great Instauration of restoring a paradise on earth by establishing “forever a true and lawful marriage between the empirical and the rational faculty” (quoted in Abrams, 60), between the material world and the redeemed mind. More often than not, in the texts of writers like Wordsworth and Coleridge, it is the human mind (and particularly the imagination) that takes precedence in this relationship, with material nature readily transformed or eclipsed by thought. Nowhere is this imbalance more evident than in poetic representations of the sublime.

Consider, for example, Wordsworth’s famous account of crossing the Alps in book 6 of The Prelude (1805). As Geoffrey Hartman observes in Wordsworth’s Poetry, the Simpion Pass episode marks the poet’s “ultimate insight as to the independence of imagination from nature” (240), even though it is preceded by verse that illustrates material nature’s power to temporarily impede the exercise of this faculty. Wordsworth confesses that on first beholding Mont Blanc, he “grieved / To have a soulless image on the eye / Which had usurped upon a living thought / That never more could be” (lines 453–55). Something about the mountain’s material presence profoundly
disturbs the speaker of these lines, particularly the way that the "image" it produces in the material eye insinuates itself onto the mind, "usurping" the poet’s preconceived "living thought[s]" or mental constructs of the summit. In a classic first moment of sublime experience, the human mind operating here is confronted with a power in nature that threatens to overwhelm it, a threat that is only contained via the exercise of mental faculties (reason in the Kantian schema, imagination in the romantic formulation) that exceed anything that can be found in the material world. Hence, Mont Blanc’s sublime otherworldliness is replaced in the very next lines with a more comforting account of the pastoral Vale of Chamouni. This landscape, unlike the summit’s void materiality, can be read like a "book" that yields the viewer "A frequent lesson of sound tenderness, / The universal reason of mankind" (473–76). Hence, this encounter illustrates a pattern repeated again and again in book 6: a drama wherein the imagination overcomes material limits by converting disorienting physical blankness into landscapes that "address" the mind intelligibly. In the process, it is cognition’s transformative power that becomes the true focus of sublime experience, not anything locatable in the glacial scenery’s "dumb cataracts and streams of ice" (457).

The question therefore arises as to what work the imagination actually performs in Wordsworth’s aesthetic. If the imagination in fact overshadows nature’s power over thought (turning the tables on "usurping" objects like Mont Blanc), how are we to interpret this, given the poet’s earlier claim that his work will illustrate how the human mind, via imagination, discovers that it is uniquely "fitted" to nature? Hartman suggests that the Simplon Pass episode establishes a ground for Wordsworth’s eventual alienation from “hope in natural processes” (245) in books 9–12 of The Prelude, particularly his early belief that political revolution has a “natural” basis. Similarly, Alan Liu asserts in Wordsworth: The Sense of History that “reference to history . . . is the only ‘power’ of Wordsworth’s imagination” (35), even though this power manifests itself in forms of denial and absence rather than mimetic representation. Yet, compelling as such readings are as illustrations of the interpenetration between artistic and political communication in the romantic period, from a systems-theoretical perspective they do not shed much light on the growing
autonomy of art as a communication system in the age of modernity. From the vantage point of Luhmannian theory, the sublime cannot be adequately understood exclusively via its hetero-reference to the political system; rather, it must be seen as a formal innovation that enables art to establish itself as a functionally specialized, autonomous form of discourse even as it interpenetrates with other social systems. As Luhmann’s work is a relatively new addition to theoretical conversations in the Anglophone world, a basic introduction to his complex theory is in order before we apply his ideas to the aesthetic of the sublime.

Broadly speaking, Luhmann’s theory is an attempt to come to terms with the epistemological consequences of modernity. He locates the eighteenth century as a period in which Western society, previously organized on a largely stratified and hierarchical model, differentiated into a more horizontal field occupied by social systems whose unity could no longer be referred to a central locus point (a king, the church, God). Society as totalizing Leviathan becomes modern society’s dispersed collection of functionally distinct subsystems, each organized around a symbolically generated media code. For Luhmann, social systems are first and foremost communication systems, each built around a distinction that enables the system to establish its boundaries in order to process environmental complexity in a meaningful way. Each subsystem functions as a “focus for comparison,” a way of marking a reference problem such that “multiple solutions can be compared” while at the same time “the problem remains open for further selections and substitutions” (Art as a Social System, 138). Modern society is therefore differentiated into political, economic, scientific, legal, and artistic subsystems that operate via distinctions like power/lack of power, payment/no payment, true/false, just/unjust, and (in the case of art) communicability/incommunicability or real/imaginary. These distinctions allow social systems to process meaning, steer their operations, and increase their internal complexity to cope effectively with the environmental complexity produced by other social systems. However, an important consequence of autopoiesis is that a system must remain closed on the level of its first-order operations; that is, although a system can observe the constitutive difference guiding other communication systems, it must necessarily remain blind to its own constitutive code on the level of
its first-order operations. This operative blindness produces a fragmented social field of autopoietic systems that necessitates what Jean-François Lyotard calls our postmodern “incredulity toward [unifying] metanarratives” (Postmodern Condition, xxiv) and, simultaneously, the need for systemic interpenetration, as systems use each other’s observations to increase their internal complexity and to check the notion that any single system has total access to “reality.”

Two epistemological consequences of Luhmannian systems theory are particularly relevant to romantic texts. The first is the radical difference between social and psychic systems, whereby the social system of art discovers the theme of incommunicability as a means of reproducing communication. The second consequence, which will be explored further in the next section of this essay, is that of art’s shift to what Luhmann calls a mode of second-order observation wherein it becomes increasingly vital for art to “observe itself and raise the question of its own functioning” (Art as a Social System, 138). One important way Luhmann’s account of modernity differs from those that preserve humanist ideals of consensus or community is that in his model individual human beings, or psychic systems, are no longer understood to be the central agents guiding social systems, even though social and psychic systems co-evolve and are structurally coupled. This means that communication in Luhmann’s theory cannot provide immediate access to an individual’s consciousness and can no longer be seen primarily as a tool for bridging separate psychic systems. Rather, communication generally communicates about its own self-created, self-sustaining networks that exceed individual psychic systems. Because of this radicalized difference between communication and psychic systems, individual consciousness or perception becomes, effectively, incommunicable—yet this is precisely what enables romantic art to become autonomous when it “discovers” the problem of this incommunicability. Indeed, this becomes the reference problem around which art establishes its autopoietic function, creating a space for communication that is truly specialized rather than supportive of other social systems (such as political or religious systems). As Luhmann makes explicit in Art as a Social System, “the function of art . . . consist[s] in integrating what is in principle incommunicable—namely, perception—into the communication network of society” (141). Dietrich
Schwanitz notes that this accounts for a central paradox that enables romantic art’s self-reproduction, namely the fact that in romantic art “solitary consciousness is the model of authentic consciousness, the awareness that any kind of communication would only adulterate it.” “Thus,” he continues, the solitary subject looks to nature for resonance and communicates only via distant objects like the moon, which are not particularly prone to excite dissent. At the same time, the discourse of Sentimentality discovers body language such as sighs, tears, swoons, etc., by which one can communicate the fact that feelings are too deep for words. With the discovery of incommunicability . . . literature finds its reference problem. (493)

There is much to be unpacked from Schwanitz’s remarks here, but the most apropos for an investigation of the anthropocentric sublime is the insight that this aesthetic, although purporting to be an attempt to communicate the incommunicable in nature, usually ends up thematizing the incommunicability of individual consciousness. This is why, in Schwanitz’s reading, the romantic poet addresses natural objects as things that cannot take part in communication, let alone generate “dissent.” The point of such communication is not to bridge the gap between nature and psychic systems but to emphasize the isolation of “authentic,” incommunicable consciousness. One way of interpreting the sublime, then, is as a discourse that ironically points to nature as something “outside” of social systems only to emphasize communication’s inability to articulate the ultimate “inside” of human perception. This would explain why the anthropocentric sublime consistently emphasizes the primacy of human thought in the sublime experience.

Applying these insights to the Simplon Pass episode in The Prelude illustrates the full significance of the poetic speaker’s abrupt transition from disappointment at having crossed the Alps without knowing it to the imagination’s exaltation in the next stanza. In the original 1804 draft of book 6 (lines 711–27 of book 8 in the revised 1805 version), Wordsworth develops a significant simile to account for how material deprivation can inspire the imagination’s triumphant unification of inner and outer worlds. He contrasts the optical illusions a traveler “thinks / He sees” (8.716–17) when first stepping from sunshine into a dark cave or similar “vault of earth”
(8.712)—phantom traces produced when the material eye is deprived of light—with true visions generated by the imagination. The latter are capable of transforming the cavern’s “senseless mass” (8.731) into a “magician’s airy pageant” (8.734) as the mind projects anthropomorphic forms (“Ships, towers, the warrior clad in mail” [8.738]) onto the cavern’s “projections, wrinkles, [and] cavities” (8.732). What is thematized here are two modes of perception, the first empirically triggered and temporary (fading within moments of adjusting to darkness), the second originating in the mind and having no fixed duration (“A spectacle to which there is no end” [line 741]). There could be no clearer depiction of the anthropocentric sublime’s inward gaze, its turning away from the external world of sensory experience to thematize the fantastic shapes of isolated consciousness. And yet, in this cave simile, language still remains anchored to a material referent insofar as the experience described is a recognizably cognitive one, involving an embodied mind interacting with physical phenomena (changes of light, suggestive rock formations). The full impact of the sublime as an autonomous aesthetic discourse only emerges when Wordsworth replaces this psychological account with the far more abstract and startling invocation:

Imagination!—lifting up itself
Before the eye and progress of my song
Like an unfathered vapour, here that power,
In all the might of its endowments, came
Athwart me. I was lost as in a cloud,
Halted without a struggle to break through,
And now, recovering, to my soul I say
“‘I recognise thy glory.’ In such strength
Of usurpation, in such visitings
Of awful promise, when the light of sense
Goes out in flashes that have shewn to us
The invisible world, doth greatness make abode . . . (6.525–36)

The imagination’s powerful “usurpation” of the speaker here has no recognizable origin in the material world; it comes upon him “like an unfathered vapour” and thus thematizes a purely self-reflexive moment. The jarring juxtaposition of this moment with the speaker’s prior feeling of profound loss with regard to absent geographical markers dramatically underscores the autopoietic nature
of communication regarding the sublime in a way that would have been compromised by locating the site of this experience in a physical landscape (the cave). The union of subject and object made possible by the imagination in the cave episode is replaced here with the mind’s absolute obliteration of material referents, the communication of pure perception. Here, it is clear that the source of human “glory” lies entirely in the mind’s “invisible world” and the effect of sublime experience is to ennoble the human subject, not to transform material objects.

A similar dynamic is evident in Coleridge’s treatment of the sublime in poems like “Dejection: An Ode.” There, the poet locates the ultimate source of sublimity in the human soul, which bestows upon nature a luminous grandeur absent in what can be perceived with the “blank . . . eye” (2.30) alone:

O Lady! we receive but what we give,
And in our life alone does nature live:

Ah! from the soul itself must issue forth,
A light, a glory, a fair luminous cloud
Enveloping the Earth — (4.47–55)

The poem as a whole thematizes the speaker’s difficulty in communicating the contents of his perception, even though it begins by invoking what should be the sublime sight of “Yon crescent Moon as fixed as if it grew / In its own cloudless, starless lake of blue” (2.35–36). Here, as in Schwanitz’s account, the moon is addressed, but only ironically as a springboard for self-reflexive communication. Coleridge’s moon, as an autopoietic object that seems to “grow” in the midst of nothingness, is in fact emblematic of this communicative closure. Moreover, such discourse becomes the paradigmatic communicative mode of romantic art, which in Luhmann’s description is characterized by “forms that precisely do not mean what they show, but are nothing other than materialized irony” (“A Redescription of Romantic Art,” 515). When romantic art discovers the theme of incommunicability as a means of reproducing communication, it takes an important step toward establishing art as an autopoietic mode of communication whose function is to thematize perception. However, while such communication makes for innovative poetry,
it has little to say that can be useful with regard to our current need to find more ecologically responsible ways of communicating about nature because it conceives of the world as a domain that exists primarily to bolster human identity. Although both Wordsworth and Coleridge desire to achieve what de Man calls the unity of the symbolic, a poetic language capable of transcending the distinction between empirical experience and the representation of experience in language, their discourse inadvertently “finds its true voice” in moments where the subject cannot achieve a desired identification with nature, nor escape the fact that language is established in “the void of temporal difference” (Blindness and Insight, 207). In systemic terms, their discourse discovers its own autopoietic function as part of a subsystem within a social domain that can no longer point to its origin in nature but rather in the operations of temporally unstable communicative events.

However, this does not mean that the world as a material reality ceases to exist, or that (in a much misinterpreted phrase) “there is nothing outside the text” generated by communication systems. Rather, it attests to the fact that as social systems become more and more complex, the question of what happens to their ability to respond productively to the meta-environment once known as “nature” becomes fraught. Luhmann has argued that it is only by becoming increasingly “maladapted” (“Evolutionary Differentiation between Society and Interaction,” 115) to the constraints imposed by the physical environment that social systems have been able to achieve their current level of complexity. Thus, in Ecological Communication he argues that changes in the physical environment currently do not resonate productively in modern social systems, either resonating too little as a consequence of their autopoietic closure, or too much when one subsystem’s response to ecological perturbations alters the environment of all other subsystems, resulting in policies that overstep systemic boundaries and create unforeseen problems in the functioning of social systems at large. The vital question facing us today is not whether we can revive communication like the sublime as a way to unify what are in fact incommensurate physical and linguistic domains. Rather, it is the question of how societies that are functionally and epistemologically fragmented can cope with ecological problems, such as global warming, that are universal in scope
and impact. One way of addressing such problems is to acknowledge the full extent to which material nature is only partially the product of our social constructions, in contrast to increasingly prevalent claims in “postmodern” environmental theory that it is impossible and/or counterproductive to distinguish between cultural discourse and physical ecosystems. Recognizing this tendency would be a first step toward questioning the anthropocentric hubris that would sanction the complete erasure of nature as a material outside of culture, and the reduction of biodiversity that follows from such an ideology. If modernity is characterized by increasingly powerful communication systems and a concurrent loss of a sense of physical nature’s rightful difference from culture’s products, then another possible response to our ecological dilemmas is to consider the value of communication that thematizes how the material world necessarily exceeds finite articulation in communication systems. In this regard, the treatment of sublimity in Shelley’s texts may prove to be ecologically instructive after all.

**SHELLEY AND THE SUBLIMITY OF MATERIALITY**

If the anthropocentric sublime “discovers” the incommunicability of perception as a means of ironically reproducing communication, Shelley’s texts reenter this distinction between perception and communication—but with a difference. This difference involves a more radical deconstruction of language’s ability either to presence stable individual consciousness (perception) or *the world as a reality unified by language*, the unifying operation of the symbolic. In Wordsworth and Coleridge’s texts, the gap between perception and communication calls into question language’s logocentric function as a means of making the subject “present.” However, the poetic speakers in their texts often respond to this gap by seeking a redeemed, symbolic mode of communication capable of unifying the subject’s alienated consciousness, language, and nature under the rubric of a transcendental signified. In this regard, early romantic texts can be seen from a systems-theoretical perspective as utilizing the constitutive distinction between perception and communication while simultaneously seeking to escape the antimetaphysical consequences of a
second distinction that Luhmann associates with the function of art, namely the way it “splits the world into a real world and an imaginary world in a manner that resembles, and yet differs from, the use of symbols in language or from the religious treatment of sacred objects and events” (Art as a Social System, 142). Here we see the flip side of the anthropocentric sublime—one that represents what de Man calls a “nostalgia for the object” at work in early romanticism, the desire for a stable origin to ground language systems and subjectivity. If texts like The Prelude dramatize the modern subject’s growing awareness that human identity can only locate its origin in that “other nature” made possible by the mind (imagination) and language, they also reflect anxiety resulting from the loss of stable origins, particularly that encompassed by a religious view of nature as an unchanging Great Chain of Being. Insofar as early romantic texts reflect a desire for the subject’s identity with nature as a means of signifying a transcendental presence, such texts could still be seen as insufficiently differentiated from religion’s function, with its deployment of the symbolic to “render[-]... visible what is invisible” via the identity between signifier and signified (Art as a Social System, 174). We see this impulse at work in some of the most famous representations the romantic sublime, where nature is seen as being analogous to a “text” that can be read as evidence of divine creation. For example, Wordsworth’s Ravine of Gondo experience in book 6 of The Prelude translates chaotic, diverse natural phenomena (“decaying” woods, “bewildered” winds, “raving” streams) into “Characters of the great apocalypse / The types and symbols of eternity” (557–71), and (as we shall see) Coleridge’s “Hymn” to the Vale of Chamouni similarly converts mute nature into something that articulates a divine origin.

This desire for a transcendental signified that unites the mind and nature is itself interrogated in Shelley’s texts, in part due to developments in the subsystem of science, which during the early nineteenth century fully realized its autopoiesis in established disciplines that produced specialized, increasingly secular forms of communication. Percy Shelley’s texts not only illustrate the failure of a desire for the symbolic but, via a further reentry, deconstruct the anthropocentrism at the core of this desire by representing nature as a material reality that resists linguistic presencing as thoroughly
as individual consciousness eludes articulation. In this sense, Shelley’s texts perform what might be called a second-order observation of earlier romantic texts because, rather than expressing “agony” over the difference between artistic symbolism and an Idea of unity (Art as a Social System, 176), his texts often communicate the impossibility of a mode of subjectivity that desires such unity.

But given the operative blindspotting that characterizes social systems, what does it mean to say that a system can perform a second-order observation of itself? Here, it must be emphasized that social systems operate on multiple levels. Despite their closure on the level of first-order operations (i.e., the constitutive distinction that enables a system to establish its boundaries from other systems), social systems are not static but rather constantly evolving. As communicative events, they exhibit dynamic stability over time, because their meaning-selection operations can vary. Despite the fact that social systems process meaning differently given the parameters of their constitutive distinctions, they also have at their disposal different ways of responding to environmental perturbations produced by changes in the way other social systems process meaning. Flexibility in a system’s selection operations is necessary because meaning always incorporates more than can be actualized at any given moment. Luhmann describes the “unity of the medium of meaning . . . [as] the difference between actuality and potentiality,” and each operation in a system as “an event that vanishes immediately after it is produced” (Art as a Social System, 139).

Therefore, he concludes that “any operation that is controlled by meaning must move beyond actuality toward what is otherwise possible.” Thus, a fundamental indeterminacy also characterizes social systems as a product of “self-observations” in which the system/environment distinction is reentered into the system via meaning and selectivity. With such second-order virtualizations, “something pertaining to the realm of potentiality must be actualized, which in turn requires that the difference between actuality and potentiality occur at the heart of experience and communication.” This is why, even though communication must take place in forms guided by constitutive difference, a system’s evolution over time is radically contingent. Although social systems are not collectively unified around a single code, they do interpenetrate in the sense that “a system’s
type of differentiation informs the system of other systems it must expect in its environment” (Art as a Social System, 135). What this means is that systemic autopoiesis occurs in such a way that a subsystem’s complexity is made available to other systems, which (in reciprocal fashion) can influence that subsystem’s complexity. For example, increasingly secular, autopoietic scientific communication in the early nineteenth century that replaces the static great chain of being with a new view of nature as a constantly evolving, non-teleological domain also influences art’s autopoiesis, eventually enabling art to break with the symbolic processing of meaning associated with religion. One could likewise discuss art’s influence on science during this period, though this is beyond the scope of the present essay.

Luhmann regards the chief innovation of romantic art to be the way that it uses symbol as a “sign that reflects upon the signifying function,” thus securing a second-order “operation of signification” for the social system of art, while also evoking “(unattainable) unity in such a way as to render the use of the symbol self-destructive” (Art as a Social System, 177). In this reading, romantic art is distinguished from religious discourse in that it does not invoke God but rather the impossibility of the symbolic, the self-referentiality of signs, and the world as a reality that remains unknown: “what [romanticism] attempts to symbolize is, in the final analysis, the reentry of the form into the form. The symbol not only stands for what it excludes but also signifies the impossibility of signifying the excluded. . . . In this sense, the symbol stands once again for the observation of an unobservable world” (ibid.). However, I would argue that later (second-generation) romantic texts more fully realize the self-destructive potential of the symbolic than do earlier works of the period, more fully enacting the limits of linguistic observation that Luhmann refers to here, and the unobservable world’s correspondingly inexhaustible complexity.

A famous example of how Shelley’s texts reenter the distinction between communication and consciousness enacted by earlier works can be found in the way that “Mont Blanc” both invokes and revises Wordsworth and Coleridge’s metaphysical constructions of nature. Stuart Curran notes how Shelley’s poem attempts to secularize the hymn form employed in Coleridge’s “Hymn before Sun-Rise, in the
Vale of Chamouni,” “Mont Blanc” being an answer to the earlier poet’s ecstatic proclamation: “Who would be, who could be an Atheist in this valley of wonders!” (quoted in Curran, 61). It is significant that Coleridge makes this proclamation from England, never having journeyed to the Vale of Chamouni. Although the poet claimed that his verse was inspired by a fit of imaginative transport after climbing Scafell mountain, his construction of “Chamouni” was entirely textual from the start, not based on any physical experience of the vale (no matter how linguistically mediated such experience must be) but rather employing descriptions second hand from Frederika Brun’s “Chamouny beym Sonnenaufgange.”7 On the contrary, when Shelley actually visited the vale in 1816, he underscored the fact that “Mont Blanc” was inspired by a physical environment when he subtitled the poem “Lines Written in the Vale of Chamouni.” The young man who proclaimed himself to be a “democrat, great lover of humanity, and atheist” when signing a guest book at an inn in the region wrote “Mont Blanc” in part as an answer to Coleridge’s claim regarding the supposedly obligatory religious belief that attended an encounter with the vale’s scenery. In “Shelley’s ‘Mont Blanc’: What the Mountain Said,” Frances Ferguson discusses the poet’s desire to “counter the myth of natural religion” that had developed about the mountain by thinking of it as a material “other” without metaphysical attributes, as a manifestation of “brute physical existence” (203). “Mont Blanc” is written to deconstruct the notion of language’s ability to assimilate this otherness, to “imagine the gap between the mountain and the significance that people attach to it.” Ferguson critiques what she claims is Shelley’s failure in this project, the way in which his text doesn’t “destroy the mountain’s symbolic value, but merely inverts it” by enacting the “impossibility of seeing the mountain as alien” (204) via a series of personifications, failed attempts to address the landscape as a “subject” with whom he can “speak familiarly” (208). Shelley’s “love” for the mountain therefore amounts to a kind of dialectical projection, a means of asserting his own existence via an imagined antitype. Thus, Ferguson reads the poem’s concluding question as a largely rhetorical one, a way for the poetic subject to assert his mind’s necessary representation of the mountain via art in the way a lover might remind his estranged partner that she would be nothing without him (211).
Although Ferguson’s reading is important because it broaches the question of Shelley’s views on materiality, it is also compromised by the fact that it doesn’t thoroughly account for the intertextuality at work in “Mont Blanc,” the way the poem activates redundancies with previous poetic configurations of the sublime primarily to permit the emergence of new forms. Ferguson therefore asserts that a mode of symbolism is at work in Shelley’s thought that is in fact more characteristic of earlier writers. Indeed, as Nigel Leask convincingly argues in “Mont Blanc’s Mysterious Voice: Shelley and Huttonian Earth Science,” Shelley draws upon the latest developments in early nineteenth-century geology in order to critique earlier representations of sublimity that had contributed to Mont Blanc’s popular reception as an emblem of Christian catastrophism, the view that the mountain bore traces of the biblical flood and was the product of either a wrathful or benign God. In opposition to geologists who supported this “Neptunist” view that earth formation resulted from of a single, anomalous catastrophe, “Mont Blanc” endorses the “Vulcanist” position that destruction occurs as a constant over time through explosive eruptions that are simply part of natural, evolutionary processes, not divine intervention. In Shelley’s time, the latter theory caused great controversy because it suggested that nature was not teleological and that materiality could not be conveniently “read” as the text of a creator. As we shall see, this is one way that “Mont Blanc” undermines faith in language’s ability to forge a symbolic unity between the human mind and nature, underscoring art’s autopoietic function instead.

In order to capitalize on this insight in section 4, “Mont Blanc” performs a second-order observation on the symbolic’s unifying function in order to actualize alternative ways of processing meaning. This is why the first section opens with images of the mind’s unity with nature, where “The everlasting universe of things / Flows through the mind,” lending human thought a splendor it could not assume in isolation, a splendor “but half its own” (1–6). These lines iterate Wordsworth’s notion in “Tintern Abbey” that the mind “half creates” and “[half] perceives” nature (106–7), receiving yet transforming its splendor in moments of sublime union. But by “Mont Blanc”’s second section, this metaphysical unity has already begun to unravel as the speaker responds to the Arve’s “loud, lone sound
no other sound can tame” by contemplating his human mind’s “separate fantasy” or what distinguishes his thought from the river’s “unresting sound,” namely the way it seeks temporary refuge from the constantly changing universe of things in the “still cave of the witch Poesy” (31–44). This remarkable passage reconstitutes the very cave simile Wordsworth initially employs (then displaces) in book 6 of The Prelude in order to comment on the imagination’s inability to fully convert material objects into forms exclusively shaped by human consciousness. That is, it enacts an anthropocentric desire for a union between mind and nature produced via imaginative conversion even as it acknowledges the illusion of this unity, given the fact that language cannot assimilate the river’s sound but can at best create a separate, imaginative domain occupied by “ Ghosts of all things that are” (46). The poetic imagination, which in The Prelude is “like a magician’s airy pageant [that] unites, embodying everywhere some pressure [impression]” (8.734–35) whereby the mind converts cave formations into “some type / Or picture of the world” (8.736–37), becomes, in “Mont Blanc,” a conjuring “witch” who subverts the (Neoplatonic) magician’s claim to the power of the symbolic. This cave, rather than reflecting poetic language’s unifying power, emphasizes instead the way that artistic communication necessarily “splits the world into a real world and an imaginary world” via a self-destructive symbolism that Luhmann sees as the defining move of romantic art.

Any residual faith that nature “articulates” symbolic unity between itself and the mind (or language) completely collapses in the third section with the speaker’s traumatic experience of Mont Blanc as a material Other utterly indifferent to human beings, and hence “peopled” only by nonhuman storms, eagles, and wolves (67). The irony of the misplaced anthropomorphism here is reproduced in the concluding lines’ attribution of a “voice” to what has already been acknowledged as an alien realm. What the mountain “speaks” at the end of this stanza is pure negativity, and hence, not really a mode of communication in the usual sense. Mont Blanc cannot “reply” to the speaker’s inquiries regarding its origin but rather has a “mysterious tongue” that articulates nothing with certainty and thus only leads to “awful doubt” in the metaphysical “faith” that underpins the anthropocentric sublime and other associated “codes of fraud and
woe” (75–81). In deconstructive terms, what the mountain “voices” here is (from the perspective of language) an absence that can only negate, repealing discursive fraud but not grounding new forms of linguistic stability. As we shall see, the new forms that develop in sections 4 and 5 do not reinstate an anthropocentric subject that is empowered by the alienation enacted in this stanza but rather trace the contours of nature as a material force that exceeds human communication.

The reentry in “Mont Blanc” of what Luhmann might call the unity of astonishment and recognition that is a hallmark of perception could not differ more sharply from Coleridge’s thematization of perception in “Hymn before Sun-Rise, in the Vale of Chamouni.” The latter poem insists that nature not only “speaks” intelligibly to human beings but rightly echoes the poetic subject’s praise for a creator that is the ultimate origin of all things. Initially, the text opens with images of silence and darkness as the vale reposes before dawn. A speaker who gazes upon Mont Blanc’s “dread and silent” form is alienated by the material silence he encounters there, a silence that can only be made bearable by a retreat into transcendent spirituality:

Oh dread and silent Mount! I gazed upon thee
Till thou, still present to my bodily sense,
Didst vanish from my thought: entranced in prayer,
I worshipped the Invisible alone. (13–16)

As with Wordsworth’s initial meditation on Mont Blanc in The Prelude, the “souless image” of the mountain here (although entirely imagined rather than empirically experienced) inspires the poetic speaker’s flight from the obvious dissonance between human consciousness and nature’s material otherness into a more comforting discourse that resolves this tension. It is only by such a retreat from materiality and temporality that the speaker’s imagination can “awake” and sing praises to the invisible hand that unites him with the scene’s otherwise grotesque features, an awakening that parallels dawn’s transformation of “bald[,] awful” (3) Mont Blanc into “Earth’s rosy star” (34). Yet the speaker’s hymn is not in itself sufficient to accomplish the symbolic unity he desires; the vale’s many “voices” must be reduced to the singularity of this hymn, too. Hence, the speaker commands that all the natural elements in the scene
“wake, and utter praise” (35), particularly Mont Blanc, the “sole sovran of the Vale” (29). When the speaker asks questions about the origin of things like cataracts and avalanches in lines 54–57, these inquiries are purely rhetorical occasions for repeating the same (and only) “answer”: God. The landscape is called upon to echo this answer ad infinitum, the cacophonous “voices” of natural phenomena in the fourth and fifth stanzas united in the final line as “Earth, with her thousand voices, praises God!” (85). Such a desire for transcendental unity, and a corresponding reduction of the world’s plurality and infinite complexity, is strong in Wordsworth and Coleridge’s texts.

“Mont Blanc” brilliantly reverses the “Hymn before Sun-rise”’s movement from darkness and silence to light and song by starting with a speaker who initially has confidence in the mind’s ability to hold “unremitting interchange / With the clear universe of things around” (39–40), but ending with a section where silence reigns over a domain that is inaccessible to human beings. Following the failure of anthropocentric identification in section 3, the text begins what might be called an exploration of alterity in section 4. The focus shifts from the speaker’s alienated perception to a meditation on the glacial ecosystem embodied by Mont Blanc and its role in the “daedal” (86) earth’s subtly interconnected networks. From the limited perspective of human utility, Mont Blanc’s glaciers seem to be a powerfully destructive force, their snakelike passage bringing a “flood of ruin” in their wake from which “the race / Of man flies far in dread” (100–118). However, the final lines in the stanza make it clear that what initially appears to be destructive is equally creative from a broader perspective, because the glacier’s runoff feeds streams that gather into “one majestic river, / The breath and blood of distant lands” (123–24), which in turn becomes part of the world’s oceans, from which water evaporates in clouds that deposit rain upon glaciers, completing a balanced cycle. Here the poem draws upon earth science in order to “show catastrophe as part of a self-regulating (as opposed to divinely regulated) economy” (Leask, 199), one consistent with Hutton’s idea that the earth’s geological cycles resemble those of an organism capable of deteriorating and regenerating itself (Davies, 174). Thus, the earth’s geological origins embodied in Mont Blanc do not point to divine creation, but to a process of slow evolution over time—that natural history over which human beings
(and their imagined deities) have had little control. Indeed, the text here carefully traces the limits of human control by maintaining that the "power" embodied in Mont Blanc "dwell apart" from human beings, is "Remote, serene, and inaccessible" (96–97). It is not a personified voice that "teaches" the speaker about the limits of human enterprise but "the naked countenance of earth," the force of matter itself evident in Chamouny's "primeval mountains" (98–100) and creeping glaciers. Such matter is mute because it does not possess human language, but its force is nonetheless undeniable—even though language, including the language of this remarkable poem, cannot assimilate this power because of the irreconcilable gap between world and text, between matter and the "works and ways of man" (92).

Rather than being a source of metaphysical crisis, however, the final stanza makes allowance for the fortuitousness of this gap by virtue of the fact that it permits an excess of meaning potential in the world, so that even nature's embodied silence can signify something quite profound. Instead of forcing the mountain's elements to speak their ultimate origin (or significance) to gratify a human desire for transcendence, the text's concluding images yoke linguistic silence with material immanence to ask what the mountain would be without any human testimony to its existence. Hence, "winds contend" on the mountain "but silently!" where no human ear can hear them and "voiceless lightning" likewise "broods / Over the snow" (134–39), even though no human being is there to interpret its presence as a trace of an absent God. The "secret strength of things" embodied in Mont Blanc precedes and in a certain sense "governs" (139–40) human thought rather than simply amounting to a Berkeleyan projection of the mind.\(^9\) The concluding question about what the mountain, earth, stars, and sea would be "If to the human mind's imaginings / Silence and solitude were vacancy" (142–44) is therefore compellingly open rather than rhetorical because it acknowledges that some aspects of the domain we call "nature" may well exceed our socio-linguistic constructions. The irony here is that human beings are apt to equate nature's "silence and solitude" with "vacancy" because their reality principle is based upon what can be communicated. As a domain that lies outside of communication systems and that exceeds human perception, material nature is in one sense silent, but
“Mont Blanc” asks us to question whether such silence is in fact reducible to “vacancy” or whether it indirectly signifies a greater fullness to the world.10

Whether such silence can be part of a new environmental praxis is also an open question. If the central paradox of the sublime is that it forwards communication by thematizing the incommunicable, which direction should we pursue in tracing this limit—inward toward the human mind or outward toward the world? Historically, in aesthetic discourses like the sublime, the dominant answer has been one that collapses world into mind, nature into a cultural construct. Yet, from an ecocritical perspective, what is potentially valuable about this discourse is precisely what happens at the limits of communication, the contested boundary between word and world. As this paper was being written, news broke regarding a record increase in the rate of glacier melt off around the world as a probable effect of global warming (Revkin, 1), which, if not halted, could erase the very source of materiality contemplated in “Mont Blanc.” Surely such reports, although they must be articulated within social systems, point to disturbing developments in our physical biosphere that urge a more thorough exorcism of the spirit of idealism from critique. It remains to be seen whether humanity can discover new ways of thinking about communication, perception, and materiality that do not rely on anthropocentric transcendence or the impossible absence of any of these domains.

Notes

1. See also Cary’s Wolfe’s Critical Environments: Postmodern Theory and the Pragmatics of the “Outside” for a cogent analysis of contemporary discourses that interrogate the “specter of philosophical idealism” (xv) in postmodern theory. Although drawing very different conclusions regarding the role of “objectivity” in representation, N. Katherine Hayles’s “Constrained Constructivism: Locating Scientific Inquiry in the Theater of Representation” also addresses how material domains (“physical constraints” in her parlance) complicate solipsistic models of knowledge formation. For an interesting contrast between constrained constructivism and systems theoretical models of epistemology, see “Theory of a Different Order: A Conversation with Katherine Hayles and Niklas Luhmann.”

2. It should be noted that other critics have arrived at very different conclusions regarding the ecological implications of systems theory. For example, Ingolfur Blühdorn argues that Luhmannian systems theory amounts to an extreme
form of constructivism wherein the so-called objective or physical existence of ecological problems is denied in favor of a view that such “problems” are purely socially determined by individual communication systems. In Post-Ecologist Politics: Social Theory and the Abdication of the Ecologist Paradigm, Bluhdorn asserts that systems theory is not only “post-ecologist” insofar as it denies nature’s normative value but also (more radically) in the sense that in this theory “the ecologist question for the physical relationship between the [natural environment and the societal system] no longer arises” (130). For reasons covered in this article, I believe such an interpretation is reductive, as many of Luhmann’s comments on ecological matters do not so much deny the material existence of environmental degradation as focus on the problem that the sheer physical existence of such phenomena cannot acquire meaningful status except through the operations of social systems.

3. A representative example of such criticism is Christopher Manes’s “Nature and Silence.” This text traces the “silencing” of nature that accompanied the shift from animistic subjectivity in Pre-Christian cultures (wherein human speech is considered not as a “unique faculty” but rather “as a subset of the speaking of the world” [18]) to Judeo-Christianity’s logocentric subjectivity (whereby “things in nature could . . . be seen as mere litter—signs that served as an occasion for discovering deeper realms of meaning underlying the forms of the physical world” [19]). Manes suggests that anthropocentric humanism and modern technological culture were both outgrowths of the latter and sees the task of postmodern subjectivity to be the overcoming of this tradition whereby the human subject “only speaks soliloquies in a world of irrational silences” (25).

4. For sophisticated contemporary criticism on the Kantian sublime, see Jean-François Lyotard’s Lessons on the Analytic of the Sublime and The Inhuman, along with Francis Ferguson’s Solitude and the Sublime.

5. Luhmann’s most comprehensive description of modernity is located in Social Systems (1995). This text should be the starting point for anyone interested in understanding the contours of Luhmann’s thought because it undertakes the project of providing a general theory to account for the characteristics of contemporary society at large (a macroscopic overview of social systems). In this essay I cite Luhmann’s more recent Art as a Social System, which undertakes the specific task of accounting for the art system’s function. For a compelling look at how Luhmannian systems theory intersects with other accounts of modernity (including postmodern theories), see William Rasch’s Niklas Luhmann’s Modernity: The Paradoxes of Differentiation.

6. In a recent book titled Environmental Renaissance: Emerson, Thoreau, and the Systems of Nature, Andrew McMurry suggests that the pastoral is a cultural theme that could potentially enable productive communication in several social systems without being overdetermined by any one of them. In this regard, McMurry presents “neopastoralism” as a possible solution to problems raised in Ecological Communication. However, I would be reluctant to endorse neopastoralism in this regard because of its affinity with historical pastoralism’s
celebration of humanity’s ongoing technological mastery of the environment in the name of “improving” nature. Rather than acknowledging limits to humanity’s ability to control nature, neopastoralism’s technological optimism derives from the notion that uncertainty can itself be calculated (and thereby diffused) by including risk analysis in the application of radically new (and, I would argue, ecologically hazardous) technologies, including bioengineering. It is therefore questionable whether neopastoralism’s desire to “bring nature along with a velvet leash instead of kicking and screaming” (McMurry, 211) is any less violent or more “progressive” than the pastoral ideology that at times underwrites modern science, evident in Francis Bacon’s notion that in order to command nature, we must follow “her” lead, or which is at work in Percy Shelley’s early utopian vision of a fully “humanized,” maternal nature in Queen Mab. For more on historical pastoralism’s relationship with technology, see Leo Marx’s The Machine in the Garden. Similarly, for ecological theory that (like neopastoralism) seeks new definitions of human dwelling that resist the dualism of urbanism versus wilderness, see William Cronon’s “The Trouble with Wilderness.”

7. In an 1802 letter to William Sotheby, Coleridge discusses some “Swiss poems” that were the inspiration for his “Chamouni.” However, as Duncan Wu notes in footnote 1 that accompanies the poem in Romanticism: An Anthology (558), a more precise source is Brun’s “Chamouny beym Sonnenaufgange.”

8. Nigel Leask links the “cave of the witch Poesy” with the Neptunist-Vulcanist debate, arguing that “Mont Blanc” challenges the Neptunist belief that caves were geological archives recording the biblical flood and/or the earth’s antediluvian inhabitants. Instead, he claims Shelley links the cave with the mind’s slavery to “primitive idols,” including “institutionalized religion and the despotism of political reverence” (189).

9. Jerrold E. Hogle’s Shelley’s Process offers an interesting interpretation of “Mont Blanc”’s claim that the mountain embodies the “secret strength of things / Which governs thought.” Hogle claims that Shelley grants a “subliminal priority” to the process of “receiving and rendering” that characterizes thought in the poem’s opening stanza, as a “challenge [to] those authors who see imagination as humankind’s way of echoing God’s creation of the world from chaos” (85). He reads the poem as illustrating that “imagination does not impose form on the void . . . unless there is first a relational interplay generating the need for ‘subject versus object’” and asserts that the text locates the nexus of this interplay at the summit of Mont Blanc: “at the heart of darkness atop the mountain . . . is the sheerly relational activity producing entities (including minds) and their connections with other forms” (86). The precise nature of this “relational activity” remains rather obscure in Hogle’s account, however. Is this activity to be taken as something akin to a precognitive state of perception, wherein the mind at once actively “renders” and passively “receives” information via a rapid interchange with material phenomena (to invoke Wordsworth’s formulation)? If so, why does the nexus of such activity take place at the uninhabited mountaintop? While I agree with Hogle’s claim that the poem seeks to trace in
the mountain “an . . . externality [that] preexists the mind,” I would not claim this externality is entirely “invisible” to perception as it is thematized in the text. Indeed, if it were, why would it be given any location in physical space? I believe it is the mountain’s all-too-visible materiality that precipitates the poem’s epistemological dilemmas, not abstract processes of interchange taking place at some unimaginable “dethroned ‘center’” of being.

10. For more on this issue, see Stuart Peterfreund’s intriguing reading of “Mont Blanc” in his recent book Shelley among Others. There, Peterfreund suggests that, for the poem’s speaker, “something . . . may come of what registers sensorily as nothing, of what resists totalization. . . . Taken all in all, the seen and the unseen, the voiced and the voiceless, testify to the existence of a ‘Power’ that is at once transcendent in the sense of resisting totalization by sensory means and immanent in the mountain” (104–5). My reading of the poem is close to Peterfreund’s in the sense that we both interpret the poem’s concluding lines as not pointing toward “vacancy” but toward “a plentitude much of which lies beyond the ken of human apprehension” (105). However, I also diverge from Peterfreund’s claim that the source of this “plentitude” is “supernaturally or transcendentally originated.” The source of Mont Blanc’s excess plentitude, as I see it, lies in the potentially infinite meanings that culture can attribute to the mountain, the way its materiality resists finite reduction not only to sensory apprehension but also to cognitive/linguistic forms.

Works Cited


