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“I Take—No Less Than Skies”: Emily Dickinson and
Nineteenth-Century Meteorology

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A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Master of Arts

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ABSTRACT

“I Take – No Less Than Skies”: Emily Dickinson and
Nineteenth-Century Meteorology

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Emily Dickinson’s poetry functions where scientific attention to the physical world and abstract theorizing about the ineffable intersect. Critics who emphasize the poet’s dedication to the scientific often take for granted how deeply the uncertainty that underlies all of Dickinson’s poetry opposes scientific discussion of the day. Meteorology is an exceptional nineteenth-century science because it takes as its subject complex systems which are inexplicable in Newtonian terms. As such, meteorology can articulate the ways that Dickinson bridges the divide between the unknown and the known, particularly as she relates to the interplay of nature and culture, the role of careful observation in the face of uncertainty, and issues of home and dwelling. These are themes integral to and further elaborated by contemporary ecocritical discourse.

Keywords: Emily Dickinson, poetry, meteorology, ecocriticism, ecopoetics, nineteenth-century science

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I'd like to dedicate this paper, in part, to my father, Dennis, whose guiding belief that books are the key to happiness led me inexorably toward this degree. More entirely, though, this work belongs to Connie and Dave who were supportive to the very bitter end, absurdly generous, and who have always seen more in me than I do in myself.

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Introduction

In April of 1865, Robert Fitzroy, friend of Darwin and captain of *The Beagle*, England's premier meteorologist, and coiner of the term *weather forecast*, finished meetings with Matthew Maury, his American counterpart, closed himself in his hotel room, and slit his throat with a razor. The last decade of his life and the last of his fortune had been dedicated to meteorology. He worked to learn the science of the weather, to collect data, and to establish a system to publicize his forecasts. Fitzroy was also forced to spend his resources politicking: jockeying for government support of his public works project and mediating expectations as to how accurate his forecasts could be. Though a decorated naval officer and a pioneer in his field, Fitzroy found his public failures and opposition too much to bear and killed himself (Anderson, *Predicting* 12). In the same year, Emily Dickinson, in all likelihood unaware of Lord Fitzroy's tragic end, wrote an accidental elegy to the man who paved the way for meteorological information to be sent along telegraph lines at all.¹

Myself can read the Telegrams

A letter chief to me

The Stock's advance and retrograde

And what the Markets say

The Weather – how the Rains

In Counties have begun.

¹ Dickinson's weather poems are numerous and varied in tone. Though for stylistic purposes this paper prioritizes depth of analysis over breadth, the analytical framework outlined here may be usefully applied to a broad range of Emily Dickinson's poetry. Please see the appendix for a list of other weather-related poems that would yield productive analysis.

‘Tis News as null as nothing,

But sweeter so, than none. (Fr. 1049)

The poem situates Dickinson within the scientific and cultural melee of her day. The speaker’s lack of interest in both the occasion of receiving a telegraph and a weather forecast are signaled by the poem’s conventionality. Here, Dickinson’s signature idiosyncratic punctuation and slant rhyme, which typically add interpretive possibility and poetic interest, are all but absent. The lack of stylistic flare results in near poetic monotone, attesting to a lack of interest in the subject of the poem: a weather forecast, a stock report. This nonchalance belies an undercurrent of powerful associations.

Dickinson chose to write about two topics of news—the stock market and the weather—whose everyday movements have little effect, but which occasionally and inexplicably turn disastrous. The speaker may downplay the “advance and retrograde” of the stock market, but the United States economy was still unsteady in the wake of the Civil War, and livelihoods depended on those slight variations. More pertinent, though, are the shared attributes of the stock market and the weather. Both are examples of extremely complex, even chaotic, systems, and both, through evolving scientific understanding, seemed to be on the brink of comprehension, if not outright control.

This sense of the imminent scientific control of the universe was borne of Enlightenment thought and reinforced, by the middle of the nineteenth century, by decades of accelerating scientific advancement. In 1870 William Stanley Jevons, natural-scientist-turned-economist, stated clearly the expectation of omniscience in the field: “There is no more convincing proof of the soundness of knowledge than that it confers the gift of foresight” (qtd. in *Predicting* 16). This claim is a frank profession of

confidence in science's ability to unlock a mystery that echoes Francis Bacon's prediction, from the *Magnalia Naturae*, that science "would give man the power to raise storms, control the seasons and hasten the harvest; by studying nature, one could come to...take control of its forces" (qtd. in Bate 77). In the mid-nineteenth century, science seemed at the brink of this kind of control.

Against the backdrop of this confidence, Lord Fitzroy's death was a bellwether. Enlightenment confidence in reason, as expressed by Bacon and his intellectual progeny, would dissolve in the twentieth century, and Fitzroy, as an avid and early student of the weather, was an early witness of the inadequacy the "Newtonian concept of order in nature" (Bate 100) to describe and anticipate very complicated systems. As ecocritic Jonathon Bate points out, despite human aspirations to control, "the earth has its way of striking back, most drastically with earthquakes and volcanic eruptions, but more often," and more humiliatingly for Lord Fitzroy and his colleagues, "with plain old bad weather" (100).

This was the melee in which Emily Dickinson was composing her poetry. Dickinson's interest in both the content and process of scientific thought is well documented and carefully argued in Dickinson scholarship. Biographers and critics as early and notable as Robert Sewall in 1974 have tied Dickinson to various scientific fields in various ways. In 1991, Fred White published "'Sweet Skepticism of the Heart': Science in the Poetry of Emily Dickinson," in which he discussed the way that scientific thinking, including forms mirroring the scientific method, made their way into Dickinson's poetry. In 2012 Emily Peel published an in-depth study of how scientific findings and ways of thinking characteristic of prominent nineteenth-century scientific

fields make their marks on Dickinson's poetry. She argues that "In her methodology, in her search of knowledge, and in her willingness to collect and collate her observations, she was practicing what the amateur scientists of her day (...a term lacking in pejorative associations) were doing" (15), and compares Dickinson to gentleman scientist Charles Darwin and his garden-bound experimentation.

At the same time that Dickinson critics have been using science to contextualize the poet historically, another group of critics has been expanding the discussion of how and why Dickinson engages with metaphysical uncertainty. Discussion of Dickinson's approach to uncertainty is as old as Dickinson's own assertion to "Tell all the truth, but tell it slant" (Fr. 1263). Richard Brantley has taken as his subject Dickinson's slanted tales, naming his 2013 book after them: *Rich Conversations* is concerned with the way that Dickinson's subjects take on depth as she plays certainty and uncertainty against each other in order to approach a deeper truth. He argues that Dickinson's poetry "is made up of voices defining 'Wonder – ' not only as 'not precisely knowing' but also as 'not precisely knowing not – '"(18), indicating the central role of both in the poetry. In *Nimble Believing* Josh McIntosh makes a similar point, focusing on Dickinson's religious views. He quotes the poet's letter to the Norcross sisters: "The unknown is the largest need of the intellect, though for it, no one thinks to thank God" as evidence that even in religious matters Dickinson valued the unknown over the known (McIntosh 123). In 2008 Farnoosh Fathi articulated the concern of a long tradition of Structuralists who discuss the way that Dickinson uses poetic technique to increase "indeterminacy" (Hagenbuchle 6). She uses the term poetic indirection, which she defines "as any literary device that, by manipulating the reader/textual interface, confounds linearity and

increases a poem's interpretive possibilities" (77). Fathi is underlining the way that Dickinson's poetics engender uncertainty, just as Brantley, McIntosh, and their predecessors discuss the poet's ambivalence toward her subject matter.

This paper finds its entry point at the intersection of these critical strains, Dickinson as scientist-poet and Dickinson as poet of the unknown. These schools of criticism have been considered in tandem before. Fred Write makes it clear that the contrast is imperative to understanding Dickinson's poetics, arguing that "the struggle between certainty and uncertainty is central to Dickinson's poetic vision" (122). Joanne Diehl is another critic who has studied this intersection, arguing that for Dickinson "nature becomes an antagonist, a deeply equivocal mystery, certainly exquisite at times, but with an exotic power that withholds its secrets as it dazzles. No matter how well one reads or imagines, nature as text withdraws and guards its final lesson" (163). However, the concept of uncertainty and the practice of nineteenth-century science are more deeply in conflict than is generally discussed, and the overlaying of these seemingly opposed critical trends is a productive way to understand Emily Dickinson, particularly with meteorology in place as a bridge between the two. While examining these trends in tandem, certain themes become apparent: the interplay of nature and culture, the role of careful observation in the face of uncertainty, and issues of home and dwelling. These are themes shared by Emily Dickinson's poetry and by meteorology, and they are grouped usefully through ecocritical discourse.

The facet of ecocriticism most fitting to Dickinson relates directly to the conflict between scientific certainty and mystery: how, the ecocritics ask, can humans fairly learn about nature and natural phenomena when science, a manmade construct, is our primary

framework for knowing? In this paper I will discuss the ways that Emily Dickinson interrogates and complicates this assumed separation between nature and culture. I will go on to demonstrate how both Dickinson and meteorology use observation to bridge that gap. To conclude, I'll argue that by applying careful observation to the intricate boundary between nature and culture, Dickinson's poetry opens up to create an experience of home.

Meteorology, Dickinson, and the Inextricability of Nature and Culture

While uncertainty is a familiar player in our contemporary scientific discussion, it is diametrically opposed to the positivist, Enlightenment-based scientific attitude of the nineteenth century. The science of the time was defined by predictive certainty, the logical outgrowth of Newton's mechanistic conception of the universe. As Katherine Anderson outlines, *prediction*, based on calculation, became the standard for scientific knowledge. She cites Urbain LeVerrier's predictive discovery of Neptune as an example of how compelling the ideal of prediction was:

Advanc[ing] step by step along the intricate maze of his
researches,...cheerfully executing calculations which diffused are almost
appalling to contemplate; until a bright flood of light is finally over all his
labours, and the distant member of our system, which human eye has not
seen, discloses itself to his purely intellectual scrutiny with all the
certainty of demonstrative reasoning. (Anderson, *Predicting* 21)

This discovery, and the rapturous, almost mystical, undertones in this account of it, underline a guileless trust in the immutable laws that governed the universe as well as

confidence in humans' ability to use reason to uncover those laws. Anderson goes on to describe similar discoveries in diverse fields: John Stuart Mill used statistics to predict a variety of human behaviors and Roderick Murchison's geological calculations precipitated the Australian gold rush (22). The mysteries of space, wealth building, and even human behavior seemed to be unraveling under scientific scrutiny.

Meteorology, though of interest to Western scholars since Aristotle, was misfit to the current of Enlightenment thinking that emphasized clear, repeatable results: "The new experimental science depended on exact, rigorous measurement of a wholly regulated environment, and this necessarily excluded the weather as a variable that could not be controlled" (Reed 4). Meteorology failed as a science per nineteenth-century strictures not because weather is in any way outside of the realm of scientific inquiry, but because scientific inquiry at the time was limited in scope. An example of this came in the last decade of the nineteenth century. Norwegian Vilhelm Bjerknes gained some traction in forecasting as he developed mathematical formulas that could more accurately predict weather. The formulas, however, took six weeks to work by hand so weren't practicable until the advent of computer processing (Anderson, "Predicting" 13). Meteorology was a field that couldn't fully develop until science moved beyond nineteenth-century restrictions.

Dickinson's preoccupation with nineteenth-century scientific endeavor, as described above, speaks to her dedication to noticing and remarking on the natural world. At the same time, Dickinson is famously a poet of social structures. Much has been written on Dickinson's conception of home, for instance (Mudge), of her anxious relationship with the beliefs and hymns (Blackstock) of her father's Calvinism. "Nature"

and “culture” are complicated terms: vague enough to encompass almost anything, but an evocative way to think about Dickinson’s relationship to each is proposed by Magdalena Zapedowska. In her “Citizens of Paradise,” Zapedowska imagines Dickinson peering out the window. The poet observes nature in her walled garden and green house; her scientific impulses are defined by religious and social morés and concerns. Joanne Diehl argues that, because of this split affinity, Dickinson can’t truly be a nature poet. Diehl conceptualizes the conflict as antagonism toward the natural world:

[Dickinson] will either appropriate the landscape by internalizing it, or, obversely, deny the boundaries between self and nature by describing the landscape in the anatomical language of arteries and veins, impressing herself upon the land. Either strategy expresses aggression, the need to win dominance from a competing, potentially destructive, province located in the land” (34-35).

But what this argument doesn’t take into account is that even if Dickinson plays nature and culture against each other, she’s still always obsessed with both. Typical of this dynamic is “The Wind didn’t come from the Orchard – today –” (Fr. 494). In this poem, as nature and culture collide, the line between the two is questioned.

The Wind did’nt come from the Orchard – today –
 Further than that –
 Nor stop to play with the Hay –
 Nor threaten a Hat –
 He’s a transitive fellow – very –
 Rely on that –

If he leave a Bur at the door
We know He has climbed a Fir –
But the Fir is Where – Declare –
Were you ever there?

If He bring Odors of Clovers –
And that is His business – not Our's –
Then He has been with the Mowers –
Whetting away the Hours
To sweet pauses of Hay –
His Way – of a June Day –

If He fling Sand, and Pebble –
Little Boy's Hats – and stubble –
With an occasional steeple –
And a hoarse "Get out of the Way, I say",
Who'd be the fool to stay?
Would you – Say –
Would you be the fool to stay? (Fr. 494)

This poem is an example of the way that Dickinson combines scientific-based inquiry with uncertainty.² Despite its whimsical tone, there are some sophisticated scientific

² The uncertainty that characterizes Dickinson's poetry makes interpreting that poetry a delicate matter. The readings presented here are simply speculations, an attempt to collate patterns into a cohesive theory.

ideas at play. First is its observational nature. Though it refuses to take itself seriously, the poem is essentially a description of meteorological phenomena. The poet works methodically through the senses, from seeing the “Bur at the door” (7), to the “Odors of Clovers” (11), to flinging “Sand, and Pebble – ” (17), as tactile an image as visual. In addition, Dickinson uses a tactic described by Fred White in adopting the structure of scientific inquiry (122) as each stanza is set up as a logical dictum using “If-Then” statements.

Playing against these scientific tendencies, however, is the uncertainty at its narrative core. First, Dickinson effectively dismantles all seeming certainties, undercutting and revising them as she goes. The first stanza is the only one set up as a declarative, and though its final line appears to suggest some solid truth, the information we are told we can “rely” on (6) is that the wind is “a transitive fellow – very –” (5), or in other words that he’s a figure we cannot rely on at all.

Second, just as carefully as she constructs those tidy logical dicta, Dickinson dismantles them. In the second stanza, “We know he has climbed a Fir” (8) is not left to stand as it is, a statement of knowledge, but is instead followed with a question, “But the Fir is Where – Declare – ” (9) which brings the knowability of the initial statement into doubt. In the third and fourth stanzas, Dickinson performs similar moves. In the third stanza the whereabouts of the wind is “His business – not Our’s –” (12) and the final stanza replaces the “then” portion of the logical statement with another question, “Who’d be the fool to stay” (21). The terminal question is more than a vain wondering, but a question directed almost aggressively at the reader. “Would you – Say – / Would you be the fool to stay” (22-23) is not a passive question, but one, with the repeated “you” (22,

23) and the highlighted “ – Say – ” that feels invasively interrogative. Instead of offering a logical conclusion, Dickinson lobs the question back at readers, asking them to question not only what they have been told, but, ultimately, if it is possible to know anything.

Through the lens of meteorology, another contradiction lies at the heart of this poem: the conflict between nature and culture. The nature-culture divide comes to the fore in two distinct ways in the history of meteorology. The first is the more abstract: Jonathon Bate argues that meteorology represents “the inextricability of nature and culture,” (102) the argument being that culture is necessarily an outgrowth of nature and that our conceptions of nature are necessarily defined by cultural practice. As Scott Knickerbocker puts it: “because we are part of nature,... ‘language and culture emerge from our biological-social natural existence’” (4). In few other realms does nature so obviously and continuously shape our culture than the weather—the clothes we wear, houses we build, topics we discuss are all defined by weather.

In the poem the wind is certainly the central character, but at the same time that its wildness and immensity are suggested, it consistently comes into conflict with the manmade world. The wind, it is true, comes from a vague “further” (2), fraternizes with mysterious firs (9), and does things “his way” (16). Beginning in the first stanza, however, the poet ties the wind not to the forest, but the orchard (1), which question is mirrored in the third stanza, where the “Odors of Clovers” (11) do not originate in a meadow, but from the cultivated field where the “Mowers” (13) are doing their work. The title mower brings with it all the baggage not only of people, but of employment, class, and tools or machinery. Similarly, flung sand and pebbles, natural items, are tossed along with the manmade: “Little Boys’s Hats” (18) and church steeples. The religious

imagery here adds cultural heft to manmade objects, the poet is bringing the wind into contact not with run-of-the-mill houses or buildings, or nondescript petticoats, instead with steeples and boys dressed for Sunday morning services. The wind is, equated with symbols of the most powerful force in the manmade world, and in that capacity it toys with them. The wind is, thus, revealed as far more powerful and enigmatic than humans can comprehend, but is conscientiously and inherently tied to human culture and concerns. The wind, in other words, is as ineffable as it is domestic.

In addition, the inextricability of weather and culture is obvious through a historical lens. The shape of early meteorology, particularly its public reception, was defined by its conflicts with centuries-long traditions of weather prediction. Katherine Anderson calls the anxiety between scientifically based government and popular weather prophets the “central fact” of Victorian meteorology (20). Early meteorologists were not trying to create their reputations on the basis of the science alone; they had to perform in the shadow of the folk wisdom of almanacs, sailors, and weather prophets.

Meteorologists were aware they were being unfavorably compared to these prophets, as well as sailors, farmers, and other folk heroes, and they were not pleased. Butler speaks for his contemporaries:

It's humiliating to those who have been most occupied in cultivating the science of meteorology, to see an agriculturist or waterman, who has neither instruments nor theory, foretell the weather...with a precision which the philosopher, aided by all the resources of science, would be unable to attain. (qtd in Anderson, “Looking” 306)

This seeming failure of the scientific method led meteorologists to great lengths toward finding some unifying, mechanistic theory. It wasn't until the advent of computers, however, that complex mathematical models could be reasonably performed (Anderson) and a meteorologist's levels of accuracy increased. Even today, with these models, with radar and satellite imagery, with hundreds of thousands of data points, we have no control of the weather, nor are forecasts entirely reliable.

This sense of complexity—of the natural world failing to fit into our culturally conceived models of order or reason—is reflected in Dickinson's poetry generally, and this poem specifically. One of Dickinson's most characteristic poetic devices, the dash, is used, as Fathi suggests, to "increase interpretive possibilities," but it also reminds us that the poem, language, is an inadequate vessel for the phenomena it describes. This poem is almost entirely punctuated by dashes, and none too subtly. The speaker seems to cut roughly from clause to clause, leaving complete thoughts in tatters, forcing the reader to stop and start. There are two results of this erratic punctuation. First, Dickinson builds a mood of windblown disruption, as when "Rely on that –" (6) transitions sharply to another "If" statement, "If he leave a Bur" (7). This adds poetic strength to the argument of the poem. Secondly, the effect is to force the reader in and out of the poem, to spend time building connections for him or herself, to spend time alone, not quite in the poem and not quite outside it.

This poem specifically enhances the nature-culture divide playing with and against Dickinson's typical rhyming conventions. There is slant rhyme here—*pebble/stubble/steeple* stands out, but what is more dramatic is Dickinson's almost complete departure from her ABAB rhyme scheme in favor of a wild amalgamation of

rhymes. These range everywhere from an almost standard ABABCC in the third stanza to the AAABBBB scheme in the fourth. As the poem moves along, the rhyme gets more and more addled as if the wind itself were shuffling these rhymes. What begins with *today/hay* and *that/hat* ends with *say/say* and *stay/stay*. Again, readers are reminded that the cultural means we have for representing natural phenomena is unreliable, scattered papers blown out of order by a stray gust.

In the poem, for all of the speaker's careful observation of the weather, for the effort to conceptualize the weather in the terms of culture, the wind is still unpredictable and powerful. Just as in meteorology, the weather at no point would cede its power to the scientists that were studying it, in Dickinson, the weather, though contextualized within the human realm, remains a force to be feared.

Observation as Overcoming

If there is any way to escape the confines of culture, even glancingly, to fairly represent nature, it begins in careful observation. M. Jimmie Killingsworth's emphasis on observation and identification has the goal to "overcome division in a setting of discord and domination" (qtd in Gerhardt 54), or to use observation as a way to fight a nature/culture duality. This dedication to observation is inherited from a long line of the nature writers who are the predecessors of modern ecocritics. Quigley uses Thoreau, the grandfather of American ecocritics, as an example of careful observation in nature writing: "Like the best writers in this genre, Thoreau was an avid practitioner of the observations required by a scientific mind and eye" (110).

In Bate's telling, meteorology's failure to produce a unifying theory succeeded in pulling meteorology out of the "hermetically sealed laboratory" (101), forcing meteorologists to lay aside assumption and theory and focus instead on the observation of nature itself. He argues that this focus enabled, or forced, the field to bridge the duality between indoors and out, observer and observed, nature and culture. In other words, careful observation allowed the meteorologists, purposefully or no, to undermine the monolith of Enlightenment thought, to overcome their roles as dominating observers and allow them a less privileged, though more informative, view of their subject.

The idea that observation can free the observer from their role as dominator is important in any reading of Dickinson. Christine Gerhardt makes note that Dickinson's poetry begins in the natural world—grass and flowers, and though her "imaginary journeys" wander even to "to the mind's circumference" they "remain grounded in the 'Minuter landscape[s]' by which they were inspired" (31). Insight borrowed from meteorology and ecocriticism makes it clear that as observation breaks down the nature/culture divide, uncertainty finds its way.

One poem that typifies this movement is "A Cloud withdrew from the Sky" (Fr. 1077):

A Cloud withdrew from the Sky
 Superior Glory be
 But that Cloud and it's [sic] Auxiliaries
 Are forever lost to me

 Had I but further scanned

Had I secured the Glow

In an Hermetic Memory

It had availed me now –

Never to pass the Angel

With a glance and a Bow

Till I am firm in Heaven

Is my intention, now –

Again in the poem we see scientific tendencies bumping up against the deeply mysterious. The first line, and impetus for the entire poem, is the observation of the movement of a cloud. In the context of ordinary life, this is an insignificant moment—clouds are nothing if not mutable. This moment is magnified by the word “withdrew” (1) which signals an unusual, for a cloud, suddenness and intentionality. The moment is further expanded by reference not only to a cloud but to “it’s auxiliaries” (3), which could include any number of other meteorological phenomena up to and including sunshine or dark, wind, or other clouds. A “Cloud and it’s auxiliaries” (3) open the imagination to include the entirety of the sky. In addition, this cloud is tied closely, grammatically and semantically to a “Superior Glory.” Is this a reminder that a greater power is in control of these minute and constant natural alterations? Or perhaps the speaker is struck by the suddenness of movement, the drama of nature, her awe ringing with a slight alteration of the expletive “Glory be!” In any case, the first stanza is a detailed account of a moment that would perhaps be overlooked by another observer, that indeed was overlooked by the speaker herself.

The first stanza, like the second, is a plea for careful observation of natural phenomena. The second stanza is even more emphatic, recording the speaker's deep regret for failing to secure "the Glow" (6) of the cloud "In an Hermetic Memory" (7), and her wish to be able to recount the observation in detail.

The goals of nineteenth century meteorologists were in line with the goals of their contemporaries in other sciences: to use laws deduced from observable data to build a predictive model of natural phenomena. In other words, science sought to subsume natural phenomena into man-made order. As was mentioned briefly, meteorologists were forced to break with that order, and they did it through observation.

In the United States, the effort to systematically collect weather data was first organized by the army (Bates). In 1859 the Smithsonian took over (Fleming 76). During this time the Smithsonian supplied reliable equipment including thermometers and barometers to a veritable army of volunteers, (among them one Professor Snell of Amherst Academy) (Smithsonian 74). The backers of this project, Joseph Henry and Elias Loomis, supposed that each year's storms were "probably but a repetition of... the preceding [year's]" and so two or three years of careful observation would "well nigh exhaust the subject" (qtd in Fleming 78). Two years became twenty, and at its peak the project was eating up thirty percent of the Smithsonian's operating budget (Fleming 78), with no clear progress.

As meteorologists failed (and failed and failed) to build a clear theory, they expanded their observational efforts to the point of earning derision from other branches of science. Even in contemporary estimation, meteorology's lack of a theoretical framework draws derision. In the words of a late-twentieth century science historian:

For a long time, at an enormous number of stations all over the world, meteorologists have been collecting data... But it is a matter of record that this branch of science has not (inductively or in any other way) developed a useful theoretical structure as have physics, chemistry, biology, and geology. We can talk about the weather, but we can neither make very accurate predictions of it nor do anything to change it. (Cohen 150)

The meteorologists were caught in a vicious cycle, where failure to deduce laws led to more and more ambitious data collection until, entirely by accident, they broke the Newtonian order into pieces.

When chaos theory was developed in the twentieth century, the mysteries of the weather came into context. In retrospect, the weather seems ahead of its time, the failure of science looks more like foresight: “the Enlightenment was one long attempt to repress the weather, to dispel the clouds of unknowing: ‘the eighteenth century can be defined quite simply, in both its epistemology and its history, as the erasure of “meteors”.’” (Serres qtd. in Bate 100).

In this poem there’s a similar narrative at play: careful observation leads inextricably toward insight. Here, as in meteorology, a sharp scientific eye leads not to a clear, unilateral answer, but observation fractures comfortable conclusions into a chaos of potential meanings.

Though this poem is rooted in a commitment to observation, that observation is done in the service neither of a certain conclusion nor a premeditated hypothesis. The observation soon gives way to uncertainty and ambiguity with the effect of pushing a reader toward individualized conclusions. As Fathi might describe it, “[Dickinson]’s

poetic indirection is in the service of riddling and articulating complex truth—especially ‘interior’ truth—which is pluralistic and paradoxical, rather than unitary, and which reflects awe toward the ineffable unknown” (78). In other words, Dickinson is dedicated to “interior” truth, to conclusions that break apart preconceived notions. For despite having one foot securely in the observable world, this is a deeply ambiguous poem, one that allows for this interior truth, both in its subject matter and conventions.

The ambiguity written into the poem is most notable in the unelaborated “now” (8) that is at the crux of the poem. That “now” is fraught with regret, as signaled poetically by the repeated “Had I” (5-6). If only, the speaker laments, a further scanning had “Secured ‘the Glow / In an Hermetic Memory” (6-7). What that memory might have availed the speaker, however, remains unclear. Friedlander describes this movement when he writes, “a specific content is invoked in the very act of being withheld. Think, for example, of ... ‘My life closed twice before it’s close’ (Fr1773), which recalls two past calamities in order to postulate a third, but tells us nothing specific about either” (40). In this poem, Dickinson performs a similar move: the value of the “hermetic memory” is clear, but Dickinson at no point elaborates why. In this way, the poem is a devious mimic of a logical assertion—the expectation is set that the speaker, observing the X in the natural world, is changed in Y way to come to Z conclusion. The first and third elements are there, but the true value of the discovery is left a mystery. As McIntosh summarizes, “Dickinson’s narrators are not only impressed with God’s power but deeply baffled by God’s ‘illegibility.’ No one writes as well as she of victimized awe before the unknowable power at the heart of things” (McIntosh 6).

As if to further emphasize this ambiguous lesson learned, Dickinson writes the final stanza with atypical (for this poem) certainty. The speaker passes a specific angel, “the Angel,” (9) with a “glance and Bow” (10)—a precise gesture full of meaning. Even being “firm” in heaven feels, against the ephemeral nature of the rest of the poem, like a substantive detail (11). In addition, Dickinson ends with a tight rhyme which suggests an intentional closure. The juxtaposition of concrete detail in a disorienting setting (the heaven whose existence Dickinson seems so wary of) adds to the uncertainty that characterizes the poem.

Dickinson also uses poetic conventions to make ambiguity a theme of the poem. Her generally minimalistic punctuation is almost nonexistent, the two dashes accomplishing related but distinct purposes. The first dash ties the second stanza to the third while drawing attention again to the importance of the ambiguous “now” (8). As the first punctuation mark in the poem, the dash’s purpose would seem to add structure to an otherwise unpunctuated poem. Instead, tied as it is to the poem’s unspoken lesson as well as the third stanza which dwells entirely on the theoretical, the dash acts only as a bridge to nowhere. Instead of adding meaning or structure, the dash insists that readers find meaning for themselves. The other dash is similarly tied to a “now” (12), and here does the same work of undermining certainty. A dash, in general, is a pause before the next thought. Here, the word “now—” (12) with a dash suggests that “now” is flexible, fleeting, looking inherently forward to what might come next. Readers are left gazing in the same direction as Dickinson, but unable to see what the poet sees beyond the horizon of the poem.

Where meteorology met with opposition was that as it brought the weather, the most familiar of subjects, into closer and closer focus, the patterns that were expected to be hiding just below the surface receded ever further from detection. In taking such comfortable phenomena as their subject, meteorologists were thwarted by the unexpected depth and complexity of weather patterns. This applies directly to Dickinson's expansiveness—poetically, Dickinson resists watertight patterns, rhythms and rhymes both. Where casual readers might expect to find familiar truisms within Dickinson's verse, they are consistently, even deviously, foiled. The poetry, despite its coziness, leaves a reader disoriented and reeling. This spaciousness, ultimately, is what this paper would like to draw attention to. Many scholars have written about how Dickinson's poetry allows for interpretive possibilities, but I think reconceptualizing this space not as vague, mental space, but as something as familiar as home changes the way we read Dickinson.

Dickinson and the Return to Oikos

Where nature and culture collide with careful observation of the natural world a universe of possibility opens up. We see this in meteorology as those early failings hinted at insufficiencies in the system no one could have guessed at. In Dickinson, multiple readings become possible as she allows nature to speak for itself. What this means for Dickinson, contradictorily, is another way to read the way the poet writes home. She manages to introduce chasms into the most intimate environments. Poems that should feel cozy, closed, finite—poems that appear small on the page, poetically straightforward,

and about familiar themes—feel instead shadowy and cavernous. Jonathon Bate offers one explanation of how Dickinson accomplishes this:

Ecopoetics asks in what respects a poem may be a making (Greek poiesis) of the dwelling place—the prefix *eco-* is derived from Greek *oikos*, ‘the home or place of dwelling.’ ... the rhythmic, syntactic and linguistic intensifications that are characteristic of verse-writing frequently give a peculiar force to the poesis: it could be that poesis in the sense of verse-making is language’s most direct path of return to the *oikos*, the place of dwelling. (Bate 75-76)

Dickinson is too complicated a figure to label directly as an “ecopoet,” but the ideas that Bate brings up tie directly to how we might view Dickinson’s complicated relationship with positivism. The first point is that poetic language can create a dwelling place, that the conceptual space Dickinson’s poems create need not be external and threatening, but may be as familiar as home. The second point complicates the first, as Bate points out that *eco*, which has come to connote *outside* or “*natural*” actually comes from the same root as *home*. At the same time Dickinson creates wide-open spaces, those spaces are made through a poem and so are inherently bound—a poem may create a sort of home for dwelling, but inherent in that home are walls. Dickinson is forever preoccupied by these conflicts; her poems are small, but construct grand mental spaces. Her themes seem familiar, but draw upon the great mysteries. Her language is intensified, distilled, to create a space discrete from the everyday. In all of this she’s bringing into question the same boundaries that meteorology does—indoors and out, nature and culture. Where Bate falls short, however, is that though he calls the space, “*oikos*, the place of dwelling,”

he fails to name it what Dickinson might: poem. In all of Dickinson's spaciousness, the structure we as readers are asked to co-construct is not an impersonal place, but home. As we add our experience to fill in the gaps in Dickinson's poetry, the home she is writing becomes our own.

"There came a Wind like a Bugle" (Fr. 1618) is a poem that is rooted in observation, where the unknown is a central concern, where nature and culture collide. In it we see the space that Bate suggests poetry can create as well as a familiar awareness of home. It is a poem typical of Dickinson's project, illustrative of the principles suggested by the ecocritics, and that is informed by the efforts of the early meteorologists.

There came a Wind like a Bugle –
 It quivered through the Grass
 And a Green Chill upon the Heat
 So ominous did pass
 We barred the Windows and the Doors
 As from an Emerald Ghost –
 The Doom's Electric Moccasin
 That very instant passed –
 On a strange Mob of panting Trees
 And Fences fled away
 And Rivers where the Houses ran
 Those looked that lived – that Day –
 The Bell within the steeple wild
 The flying tidings told –

How much can come
 And much can go,
 And yet abide the World! (Fr. 1618)

This poem again begins in observation and description. Scholarship has tended to focus on the metaphor of the first line (Day-Lindsey); it seems likely, however, that a strong wind through trees or railings could howl like a horn, and that if it did, it might catch the attention of a careful observer like Dickinson. The speaker spends much of the poem narrating the wind's movements closely—as it quivers through the grass (2) and passes over various landmarks, or through “a strange Mob of panting Trees” (9). Readers follow so closely, in fact, that it feels as though they are riding on the back of this wild wind, watching the destruction from a near first person viewpoint. This observation is indicative of a careful examination of the wind but simultaneously follows it straight from the physical world into the metaphysical. From the “Mob of panting Trees” (9) we enter a place unobservable. Fences flee (10), houses run (11), and religious and philosophical discussion finishes out the poem. Dickinson's pattern of beginning with the observed moment, then using that moment to extrapolate grander truths is reflected in this poem.

Dickinson is clearly concerned with the manmade and cultural objects the wind comes up against. First there is a house which is closed aggressively against the wind as, “We barred the Windows and the Doors” (5). Later fences and more houses define the wind's path, even as they're swept away in the destruction of the storm, and finally a bell tower is caught up in the storm. The bell tower is particularly evocative as it is a manmade structure that interacts with the wind rather than acting as a barrier against it.

The steeple itself is “wild” (13), and the bell sings the wind’s “flying tidings” (14) as it is tossed to and fro. It is an image of force, coercion, dominion, as the bell is helplessly tossed to and fro by the power of the wind, but, of course, that is the wind’s job, and the bell’s.

In these confrontations between nature and manmade objects supernatural forces are brought into play, Dickinson denying these familiar objects their familiarity. The storm is referred to as an “Emerald Ghost” (6) and “Doom’s Electric Moccasin” (7), but only as it is shut out from the house. The houses do not stand, as ordinary houses might, but run (11), a verb surely blown out of its place in reference to the river earlier in that line, a move that transforms those houses into monsters. Here we see Dickinson defamiliarizing familiar objects in order to give her readers pause, to give them time and space to adjust to the strangeness.

The cultural references Dickinson is playing against do not stop with manmade structures, either. The wind’s comparison to a bugle ties the entire poem to the manmade: metalsmithing and particularly the military (Day-Lindsey 29). The inclusion of the inherently militaristic bugle also introduces a sense of opposition—not only is the wind menacing in its own right, but it seems from the beginning to be leading a charge on the manmade environment that it comes across.

There are also religious overtones. The line “Those looked that lived – that Day –” (l. 12) is a reference to the story of the fiery serpents in the Old Testament. In the story, the Israelites were set upon by fiery serpents as a punishment for sin. The Lord commanded Moses to build a serpent, set it upon a pole, “that every one that is bitten, when he looketh upon it, shall live” (Numbers 21:8). This Bible story fits the tone of the

poem: Moses made a brass serpent by hand, and this manmade object was a symbol of the power of God and religion. In a poem defined by the antagonism between the natural and the manmade it fits beautifully. The metaphor is simultaneously reinforced and undercut, however, by the earlier reference to “Doom’s electric moccasin” (7), a clear parallel to the fiery serpents. Though the epithets map closely, Dickinson’s is full of contradiction: *electric* certainly refers to technology and the manmade, but is also apropos to the lightning of the storm at the center of the poem. Similarly a moccasin is footwear, tied to hunting and tools, redolent even of the genocide of the American Indians, but also a new world serpent, a water moccasin, as natural and antagonistic a figure as the wind. Though water moccasins live primarily in the South, so were not familiar to Dickinson personally, the 1858 Webster’s kept by the Dickinsons includes this serpentine definition. Here Dickinson is not only bringing the natural and manmade worlds into conversation, but using all her skills as a wordsmith to bind them closely together.

Cumulatively these elements create an immense poem, one that uses rude juxtaposition to jar readers out of pat following and into paths all their own. Every time the register changes, the reader is forced to redirect. The wind here does not move from house to house to sky, but from quivering grass (2) to a barred house (5) to trees (9) to more houses (11) to the bell tower (13) where manmade and natural are all wound together to an entirely novel metaphysical conclusion. Each time a reader’s focus is shifted, a moment is required to refocus, and in that moment the reader’s mind wanders.

In this, Dickinson allows her readers to construct dwelling places of their own, familiar as home. There are suggestions of walls, here, and windows, but most strikingly

is the space Dickinson manages to inject into the poem. This is the poetry that the ecocritics suggest, a poetry that can “speak the silence of the place,” or connect readers with their natural setting. As Dickinson mixes the unknown with the intimately familiar, her reader is disoriented without being alienated, that is, invited into the poem without being driven through it forcibly. Readers have a chance to actively wander, moving from this image to that, free to draw their own conclusions.

The final lines of the poem veer steeply, as if flung from the concrete imagery that makes up the body of the poem into abstract supposition. The observation that Dickinson ends with seems to reflect the antagonism twisted through the rest of the poem: “How much can come / and much can go / and yet abide the world” (15-17). The tiding is interesting in the context of this poem because of the grounding it suggests. That is, “the world” exists separate from the things that may come and go, or in other words, the world is at odds with the things that are in it. It is that space, the space created between “the things” and “the world” that Dickinson builds for us. She draws our attention to the spaces between the natural and the built world, the interstices whose only possible bridges are built by our minds as we read. Her insistence on juxtaposing natural and manmade, familiar and unknown, allow and insist on her readers entering the poems and making them their own, building bridges to cross the gaps placed by the poet. In this, Dickinson isn’t simply calling for or inspiring a return to an impersonal “oikos,” but rather, the dwelling place she creates for her reader is, in its intimacy and familiarity, home.

Conclusion

In Emily Dickinson's poems we see a near-obsessive preoccupation with understanding and engaging with the world around her. She observed, she contemplated, and she recorded her conclusions with a persistence that rivals any of her scientific contemporaries. As Emily Peel and Fred White both point out, Dickinson is interested as much with a scientific search for knowledge as she is in the scientific findings of her time. But any discussion of Dickinson's role as scientist, as any discussion of her poetry, is incomplete without accounting for her fixation with the unknowable as well as with the domestic. A careful study of meteorology, in its way a deeply characteristic nineteenth-century science, accounts for these uncharacteristically nineteenth-century tendencies.

Meteorologists didn't know they were undertaking the study of incredibly complex, even chaotic systems, at the outset. They could have understood neither the computer models that would be available and necessary to their scientific progeny, nor that uncertainty would become enthroned as a scientific concept in and of itself. They were all too aware, as Lord Fitzroy's tragic death attests, of the conflict inherent when scientists study the mysteries in the intimately familiar and even domestic. They kept collecting data, even when conclusions weren't forthcoming, and did their work the best they could even as giant gaps in their understanding remained. In differentiating themselves in this way from their contemporaries, they didn't make themselves any more popular, but they did develop more than a passing similarity to a certain New England poet whose mode of inquiry and concerns were nearly their own.

Emily Dickinson's poetry, concerned as it is with mystery, unanswerable questions, the unspoken, has its roots planted firmly in the natural world. She uses her

own sensory experiences as impetus for the deep delving her poetry does. Her poetry, focused as it is on the natural world, is also always built around it. In this poetry, natural phenomenon take place within a house, garden wall, or town. This doesn't make her poetry any less expansive, but, as the ecocritics would argue, the way she uses poetic structures to establish uncertainty combined with the familiar boundaries of window, wall, and home, impel readers toward grand imaginary spaces of their own construction.

Appendix

Emily Dickinson's weather poems are numerous and varied in tone. Though this paper prioritizes depth of analysis over breadth, and storm poems over fair weather poems, the analytical framework outlined here may be usefully applied to any number of Dickinson's poems. Included here is a brief list of some weather-related poems that would yield productive analysis.

- 224 An awful Tempest mashed the air –
- 334 Of all the Sounds dispatched abroad
- 425 'Twas like a Maelstrom, with a notch
- 477 He fumbles at your soul
- 509 A curious Cloud surprised the sky
- 621 The Wind – tapped like a tired Man –
- 796 The Wind begun to rock the Grass
- 841 Struck, was I, nor yet by Lightning –
- 883 A South Wind – has a pathos
- 1121 The Sky is low – the Clouds are Mean.
- 1152 The Wind took up the Northern Things
- 1160 The duties of the Wind are few
- 1199 A soft Sea washed around the House
- 1295 I think that Root of the Wind is Water –
- 1418 A wild Blue sky abreast of Winds
- 1441 How lonesome the Wind must feel Nights –
- 1735 A – Cap of Lead across the sky

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