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MORGAN VANEK

Where the Weather Comes From

In 2017, Astrida Neimanis and Jennifer Hamilton issued a call for closer attention to how “our own bodies, and the bodies of others, experience weather,” including “how we and they manage it architecturally, technologically, professionally and socially”—because in all of these ways, they argue, “we are weather-makers, too.” For many, this is not an intuitive claim; after all, as Tobias Menely has observed, “we have been taught, since the Enlightenment, not to look [for ourselves] in the weather” (479). In this case, though, Neimanis and Hamilton refer to two different types of weather. In the first instance, the weather “our own bodies . . . experience” calls to mind a limited set of meteorological conditions, particular patterns of precipitation or fluctuations in temperature we “manage” mostly by staying indoors. This is the type of weather we do not typically imagine we “make,” because we have not—until now—had reason to really believe we can call down the rain or turn up the heat of the sun. In the second instance, however, Neimanis and Hamilton propose that the conditions of the atmosphere we have come to call “the weather” include more than precipitation or air pressure and extend to all the ways we collectively make it more and less possible for some bodies to find shelter. The contrast between these two types of weather raises questions: What have we missed, first of all, by focusing our investigation of how we contribute to the weather only on our impact on that first, narrower set of meteorological conditions? What other aspects of our influence might a more expansive definition of the weather help to bring to light—and what other opportunities to intervene could this exercise uncover? Finally, how is it that one of these views of the weather has come to feel so familiar, even self-evident, while the other now comes as a surprise?

To begin to answer these questions, we might ask one more: where did that sense of the weather as a set of specific conditions, all available to empirical observation, come from? In this paper, I argue that, both as a concept and as a material condition, the weather we observe today comes from the eighteenth century—and that a look back at the moment when this now commonplace sense of the weather was still taking shape can offer a useful new perspective on some of the formal challenges that the massive scope of the present climate crisis presents to both the scholars and the storytellers living in it. By reconsidering the concerns that our quotidian sense of the weather inspired when it was new, first of all, we find that many current critiques of this model have been anticipated in the widespread debate about the objectives of empirical inquiry in which it took shape—but we also catch a glimpse, in eighteenth-century fears about what might be lost to the rise of this new science, of the alternative (and often more expansive) models of perceiving both the causes and consequences of encounters with extreme weather that were circulating at the same time. For eighteenth-century critics of the

empirical weather report, of course, concerns about “climate change” are more likely to focus on the perils of global travel, or how movement between the climatic zones defined by latitude was likely to affect the body of the traveller, than to seriously confront the possibility that human activity could shape the history of the planet on a geologic scale. Neither the imperial impulse nor the economic systems that facilitated eighteenth-century travel are unrelated to the crisis of the present, however. As this paper will demonstrate, the narrative forms that these eighteenth-century writers developed to register the wider social, economic, and material conditions that could turn an unremarkable storm into an emergency can also offer scholars of the present both new narrative structures that acknowledge the agency we now know we have to make the weather and new figures that expose the many moves, on many scales, that we could make to manage it differently.

Some of these moves are already well documented, of course—and not just in the broad strokes of the Fifth Assessment Report (AR5) of the United Nations’ Intergovernmental Panel on Climate Change (IPCC), which identified “changes in extreme weather . . . events” as a significant consequence of anthropogenic climate change (6-7). In fact, the revelations of the Anthropocene seem to have made it newly possible to acknowledge evidence of human influence in many surprising spheres, and to begin to reconsider, sometimes to radical ends, what is actually captured by the contemporary weather report. It’s in this spirit, for instance, that Ando Arike can turn back to the “National Oceanic and Atmospheric Administration (NOAA) weather satellite [detection] of an exceptionally large and hot thermal ‘anomaly’ extending over more than 85 square kilometers of Los Angeles . . . [on April 30, 1992],” and find there “the thermal map of a social explosion—the rioting following the not-guilty verdict in the Rodney King police-brutality case,” now “broadcast back . . . as a type of geophysical phenomenon” (72-73). For Arike, the fire is a synecdoche for both the protest and the human emotion behind it, so when its heat turns up on the NOAA satellite, that satellite appears to have captured not just a thermal anomaly of human origin, but also the whole atmosphere—including, perhaps, the history of police brutality—that set it off. From the perspective of the satellite mentioned in this story, however, the “weather” available for detection still includes only “geophysical phenomen[a]”—and to this end, the narrowness of the satellite’s gaze also reflects the bounds of the inquiry it inspires, or the extent to which this new effort to uncover evidence of the human hand in the weather has been limited by an understanding of the weather as material. When we’ve gone looking for the weather we’ve made, that is, we’ve tended to consider only the first of the two senses of the term that Neimanis and Hamilton use above—and yet, for all the concrete specificity associated with this sense of the weather as a “geophysical phenomenon” (or self-evident condition), its formal definitions are surprisingly vague. According to *Meteoterm*, the terminology database developed by the World Meteorological Organization, *weather* refers to “the state of the atmosphere at a particular time, as defined by the various meteorological elements,” but the definition does not go on to identify which elements this might include. Likewise, though *weather* is central to the definition of *climate* developed by the IPCC (“the ‘average weather,’ or . . . the statistical description in terms of the mean and variability of relevant quantities over a period of time”), the “relevant quantities” in question are identified only as examples, rather than necessary characteristics: “These quantities,” the IPCC definition continues, “are most often surface variables such as

temperature, precipitation, and wind” (119-20). Making an inference, however, based on this list of possible quantities that could be included in its assessment, the state of what is called “the weather” at any given moment typically describes a somewhat—but not infinitely—flexible combination of conditions, all of which share certain characteristics: they change over time (they’re “variable”), the amount they change is available to empirical observation and measurement (they’re “quantities”), and they are obvious, in the sense that a “surface,” or what has “surfaced,” typically describes those aspects of an object available to casual apprehension. Despite all the recent research to demonstrate how human activities have contributed to change in these conditions over either the long or the short term, then, this list of characteristics itself establishes a short horizon for that investigation—because if this is what the weather *is*, any discussion of its increasing severity or unusual extremity is very likely to begin and end with empirical evidence of superlative change in these “relevant quantities,” and will not necessarily include any reference to the range of other conditions that require some bodies to weather more than others.

More recently, however, the narrowness of this term has also captured the attention of a number of scholars whose work engages with both the environmental humanities and critical race theory. Among those interested in how this concept could be stretched to register more of the political and economic threats in the air at any particular moment, two paths to its revision have opened. For some, like Kristen Simmons, this empirical model of the weather works well enough to register the operations of the pervasive but invisible conditions that make up an atmosphere, but the range of variables it considers is too small—and so the challenge now is to demonstrate how other conditions are also changeable, quantifiable, and obvious, or good candidates to be considered regular elements of the weather. To illustrate the atmospheric but material operations of racism, then, Simmons highlights moments when the systems of oppression in the air become visible—as when, for instance, “[t]ear gas and pepper spray (both riot control agents) became the dominant crowd-control tactics deployed against nonviolent water protectors at Standing Rock.” Here, Simmons argues, the tear gas is a material, observable manifestation of what the water protectors could already feel: that the atmosphere—from the gas to the “constant low-flying helicopters, flood lights, and a large militarized police presence”—has become “a medium for violence and control.” For others, however, like Christina Sharpe, Rachael Loewen Walker, and Neimanis (writing in a different context), the weather is never as self-evident as this empirical model suggests, because the significance of any individual weather event is determined by the collision of a range of human, non-human, and more-than-human forces, each with a history of its own (Sharpe 106; Neimanis and Walker 560). To apprehend the weather of any moment, this critique suggests, we need to know where the weather comes from, or to be able to see, as Neimanis and Walker explain, both the patterns it disrupts and the patterns it leaves undisturbed (562). To this end, Christina Sharpe’s *In the Wake: On Blackness and Being* provides a useful illustration. According to Sharpe, re-conceiving the weather as “the totality of our environments” could make it possible to register the invisible operations of slavery’s legacy that ensure that the black body is more often seen as “terror’s embodiment, and not the primary objec[t] of terror’s multiple enactments” (15)—but in order to bring anti-blackness into focus as an environmental condition, we must acknowledge that the weather is made, at least in part, by its reporting. In

other words, she explains, the weather is not just a “set of quotidian catastrophic events” (20), but also the “rapid, deliberate, repetitive, and wide circulation on television and social media of Black social, material, and psychic death” that both “registers and produces the conventions of anti-blackness in the present and into the future” (21). This, for Sharpe, is the “dysgraphia of disaster” (21), or the pattern of the expression that is always working to shape not only the aspects of the weather around us that we can apprehend (or ignore), but also the material conditions to which we respond. The implication here, however, in a paragraph otherwise dedicated to describing the “Black aesthetic and other modes of deformation and interruption” that Sharpe will make her archive (20), is that if we could change our forms of expression—by reimagining, say, what constitutes “the weather”—we might not only become more attuned to the many ways that the “rapid, deliberate, repetitive, and wide circulation” of only some types of information helps to naturalize particular relations of power, but also more capable of assessing the risks of this aspect of the weather, and more accountable for the power we already have to intervene.

This is not a facile claim: to change the weather as Sharpe has imagined it, as a “totality,” is no less a large and knotty task than it has been to come to recognize and begin to respond to “carbon lock-in,” or the many habits of our carbon-heavy lifestyles that contribute, more each day, to future storms. If it is true, though, that this “totality” is comprised of parts as small as the particles of tear gas Simmons sees and the bits of the broadcasts Sharpe names here, some opportunities to intervene might be equally small, similarly quotidian—and similarly hard to see, perhaps, without a wider view of their role in the weather to expose them. This is the context that motivates this essay, and provides its charge: to interrogate, first of all, the assumptions about the weather that sit behind these new efforts to expand its definition, and to begin to explore some of their implications—and to explain, through what follows, where our contemporary sense of the weather has come from, with the hope of opening new possibilities for how we report it now.

Speaking of any one weather event, of course, there will be particular answers to questions about where that weather has come from—but speaking of the weather of the present in general, it is not unreasonable to observe that it has, both literally and figuratively, come from the eighteenth century. To begin with, as Andreas Malm points out, the increasing intensity and number of extreme weather events associated with the scattered climate crises of the present represent the impact of fossil fuel consumption patterns set in motion approximately three hundred years ago (7-8). In this literal sense, then, the narrowly defined set of “surface variables” treated by the contemporary weather report have their origins in the eighteenth century—but it is also true, and not unrelated to these material conditions, that both this set of variables and its status as the central object of meteorological study are products of the same moment. At the time this sense of the weather took shape, furthermore, the technologies and observational protocols associated with it were also involved in a wider debate about the rise of empirical methods in general that has many points in common with contemporary discussion about the term’s limitations. And so, with this echo in mind, the chief objective of the rest of this paper is to historicize this empirical sense of the weather, or to examine it in the context that produced it, and to clarify how this debate about the myopia and potential amorality of

the new science helped create a competitive (rather than complementary) relationship between numerical and narrative weather writing. Even as this empirical approach to weather-watching became increasingly popular, however, particularly towards the end of the century, alternative methods of perceiving and writing about the weather persisted—and in these alternatives, we find not just a precedent for conceiving of the weather as, in Sharpe’s more recent phrase, “the totality of environments in which we struggle” (111), but also a model for figuring these political and social dimensions of this totality. To this end, the second objective of this paper is to identify and explicate one such alternative in Susanna Rowson’s *Charlotte Temple* (1794). Writing in the midst of another long debate—this time focused not on meteorological measurement, but rather on the potentially degenerative effects of American air—Rowson imagines two similar British travellers who experience the same storm in very different ways, one standing indoors and the other exposed, in order to shift the focus of that wider discussion away from the intrinsic qualities of the air or the bodies exposed to the storm and towards the shelter available only to some of those bodies. Both by taking for granted that the conditions to which her heroine is exposed include the social and political dynamics that explain why she is out of doors in the first place, however, and by placing at the centre of her scene—literally, in the threshold between her heroine and safety—those social and political aspects of the weather that her characters have it in their power to change, Rowson here also offers contemporary scholars a model that we might adapt to shift the terms of our own discussion away from the strangeness of the weather itself and towards the strangeness of wildly unequal conditions of exposure. By looking back to this eighteenth-century intervention in a debate about what makes for “bad air,” then, we find both one new way to name and figure the political dynamics that govern unequal patterns of exposure, and a reminder that the effort to figure these larger political dynamics could also help us to identify the type of small actions, very different from the traces we leave in the rock record, that can nonetheless change the weather we make for one another: an open door, an invitation.

There are a number of different versions of the story of how our modern concept of the weather took shape, but in general, these stories trace the same arc: over the course of the eighteenth century, the close study of both the spectacular and the banal phenomena variously known as “the weather” moved out of the fields and into urban laboratories, where its variations could be subjected to new observational protocols and organizational systems that aimed to expose and explain its patterns. Without veering into techno-determinism, furthermore, many versions of this history identify the introduction of new meteorological measuring instruments, a material reflection of a more general enthusiasm for quantification and the numerical record, as an important force behind the rise of this empirical model. According to Vladimir Jankovic, for instance, this change in thinking about the weather has more to do with a growing interest in expanding agricultural productivity than the popularity of these new observational technologies, as it was this economic interest that helped to raise the status of an older “prognostic” approach to studying weather signs. But, he admits, the champions of this approach also systematized it, emphasizing the statistical significance of various kinds of weather lore rather than the qualitative description through which this type of folk knowledge had historically travelled (129-142). For Jankovic, that is, the laboratory was merely the site of a transformation motivated by other investments—but for other historians of

science, like Jan Golinski, the particular technologies and protocols of the laboratories the weather entered would exert their own pressure on the concept. According to Golinski, “‘the weather’ as we understand it—as a quotidian occurrence—was constituted through regular record-keeping governed by the clock and the calendar” (31), or an approach to observation and recording, encapsulated by the weather diary, that promoted new and more careful attention to minute changes in both meteorological conditions and the conditions of the weather-watcher’s health and mood (82). Ultimately, though, these two stories advance in parallel, each treating different aspects of the same change, and both agree that “‘the weather’ as we understand it” now is quotidian, or presumed to happen every day, and quantifiable, or available to both measurement and comparison over time.

Both Jankovic and Golinski agree, too, that the rise of empirical science represents an especially important context for understanding these changes in thinking about what the weather is (and is not). Where each considers the concerns inspired by these increasingly quantitative and standardized models of weather-watching, furthermore, both observe, more and less explicitly, that any discussion about these new models was itself inflected by the investments and alliances established over the course of a much longer debate, simultaneously unfolding in many other spheres since the end of the seventeenth century, about the origins of knowledge. On one side of this debate were the “moderns,” or those who believed in the power of the new science to reveal both the truths of the natural world and the divine order that lay behind it. To this end, advocates of this view also championed empiricism, identifying sensory experience as the source of all knowledge and celebrating the widespread use of new instruments, like the microscope and telescope, along with the quantitative methods of recording this new technology had inspired. On the other side of this debate were the “ancients,” or those who identified classical or religious authority as the origin of knowledge, advocating the close study and imitation of the classical forms believed to condense the rules of art and nature for the edification of the fallen modern world. In the eyes of the ancients, the new science was shallow, or inordinately preoccupied with mere physical difference, but it was also distracting, directing the precious attention of its devotees to matters either too small or too far away to observe without the aid of instruments, and thereby encouraging the neglect of the trickier moral dilemmas that characterize so much of life in the human sphere. Considered in this context, the shift from qualitative to quantitative descriptions of the weather made possible by new observational technologies had ethical as well as practical implications—and as demonstrated by Samuel Johnson’s complaints, in *The Idler* of 1758, about the new vogue for weather-watching, these implications could be pulled to the foreground of just about any encounter with the elements. For example, as an introduction to an essay about “the Expedients of Idlers,” or the preoccupations popular among those who want to seem busy, Johnson tells a short story about the “disturbance” that a month of rain has given “to the inspectors of barometers” (92). Unlike the speaker, who is more “content to credit [his] senses, and to believe that the rain will fall when the air blackens,” the “votaries” of these “oraculous glasses” have been deceived: “shower has succeeded shower, though [the barometers] predicted sunshine and dry skies; and, by fatal confidence in these fallacious promises, many coats have lost their gloss, and many curls been moistened to flaccidity” (92-93). The amateur meteorologist is all wet, in other words, because he has spent too much time looking down at

his instrument, rather than out the window at the world. Towards the end of the essay, however, Johnson's critique grows darker, raising the possibility that too great a preoccupation with these new scientific technologies and protocols could also lead to more sinister activities: similarly curious "inferior professors" might, for instance, be inspired to "nail dogs to tables and open them alive; to try how long life may be continued in various degrees of mutilation," and so on (94-95). In Johnson's view, it's the claim to objectivity, and thus amorality, that makes the new science so unnerving—and so, to the extent that these aids to minute observation appear to be capable of encouraging the weather-watcher to forfeit both his reason and the wisdom of his unassisted senses, this seemingly innocent if "useless . . . sport with inanimate nature" should be approached with caution, as it reflects both the myopia and misplaced priorities of this empirical method (94).

In addition to demonstrating how deeply entrenched positions in this debate could be, however, such that any writing about the type of mistakes that left a body exposed to inclement weather might appear to stake a claim for one source of knowledge or the other, Johnson's essay also productively illustrates the costs of suggesting that one type of knowledge must come at the expense of the other. In this case, where Johnson's speaker identifies an alternative to the new mode of weather-watching in his own inclination to "credit [his] senses, and to believe that the rain will fall when the air blackens," he also seems to be speaking to the broader perspective that he fears might be lost to this new enthusiasm for the minute particular, and to identify embodied knowledge in particular as a source of empathy (of the kind, say, that might discourage live dissections) that will be eclipsed by the empirical method. From the perspective of the present moment, of course, this looks like foreshadowing, an early warning about the type of questions we foreclose by privileging only information that can be measured—but it's also a useful reminder, a cantankerous affirmation of the alternative possibilities for understanding that still exist in excess of the data and protocols that have been naturalized over the last three hundred years. With Johnson's critique in mind, for instance, we might turn back to that NOAA record of the 1992 "thermal anomaly" and ask, rather than whether this heat produced by human action can properly be called the weather, whether we need a satellite record to confirm the explosive elements in the atmosphere—the grief, the rage, the racism that inspired each—given material form by those fires. And if we were to "credit our senses" instead, which senses, exactly, might be most attuned to these aspects of the atmosphere?

By historicizing a concept like the weather, then, or looking back at the terms and sticking points of popular debate at the moment this concept took shape, we can uncover traces of this debate in its contemporary iteration—or the influence, in this case, of that opposition between qualitative and quantitative record-keeping in the omission of qualitative evidence from that list of characteristics that unite the conditions typically treated as "the weather" (variable, quantifiable, and obvious). Likewise, we might begin to sense, in Johnson's concerns about the falling status of embodied knowledge, that the claim to objectivity that still unsettles contemporary scholars has been a feature, not a bug, of this empirical model of the weather from the beginning. As the rest of this essay will demonstrate, however, this effort to historicize can also help to expose alternatives to the models we have inherited from the Enlightenment,

particularly as it casts light on the other ways of thinking about the weather that were circulating alongside this empirical model at a moment when its definition still seemed malleable, contingent, or otherwise uncertain. For those engaged in the present effort to reimagine this term, in fact, eighteenth-century travel writing can be an especially productive source of these alternative (and often more expansive) models of thinking about what the weather is and why different bodies seem to weather it in such different ways. In part, of course, this is because eighteenth-century records of far-away weather were so hard to verify, and so demanded a different sort of faith in any surprising or especially severe report. For many eighteenth-century observers, however, any traveller's exposure to extreme weather abroad also seemed, in some ways, less inevitable than exposure to similarly surprising weather at home, and so raised more questions—particularly relevant to contemporary scholars seeking new rhetorical strategies to register similar concerns—about the larger context in which any encounter with extreme weather occurs, or why some bodies had been left so exposed to such severe conditions in the first place.

Consider, for instance, Susanna Rowson's *Charlotte Temple*. As a contribution to debate about the potentially degenerative effects of American air on the bodies of British travellers, the shape of the story Rowson tells about her British heroine's encounter with the weather in North America would have been as familiar to her readers as the shape of the novel's sentimental plot: both start on a high note and end badly. Having abandoned the instructive models of good behaviour and reward that she might have observed in her parents, Charlotte first becomes infatuated with the rakish Montraville—and then, too willing to trust the bad advice of her former boarding school teacher, Mademoiselle La Rue, Charlotte follows Montraville to America. Soon abandoned, pregnant and friendless, when another naïve young woman catches Montraville's eye, Charlotte then sets out to find Mademoiselle La Rue, who has also (and more successfully) eloped to New York—but after stumbling through the “snow [which] fell so fast, and the cold so intense, that being unable from her situation to walk quick, she found herself almost sinking with cold and fatigue before she reached the town” (80). When Charlotte finally makes it to the doorstep of her former friend, her pleas for “shelter from the winter's piercing cold” are tersely rejected—and though she does briefly benefit from the kindness of a few strangers during the sudden birth of her daughter, she dies soon afterwards (82-83). For enthusiasts of the eighteenth-century sentimental novel, then, the plot of this story would be entirely predictable, different from the dozens of other similar treatments of the same bad behaviour only because Charlotte experiences so much of her downfall in North America. Even to this end, however, the exposure sequence of Charlotte's lowest moments appears to reproduce what had become, by the end of the eighteenth century, quite a conventional narrative about the effects of American air—at least insofar as she dies.

Popularized by Georges Louis Leclerc, Comte de Buffon, the theory that appears to predict Charlotte's descent proposed that there must be some “combination of elements and other physical causes, that opposes the amplification of animated Nature” in America, such that “[e]ven those which, from the kindly influences of another climate, have acquired their complete form and expansion, shrink and diminish under a niggardly sky and unprolific land”

(129). As Susan Scott Parrish has observed, this theory was most often leveraged to suggest that the relatively small size of American flora and fauna might either explain or foreshadow a similar decline in the moral and intellectual condition of British travellers or settlers who remained too long under this unfamiliar air (89)—but Rowson imagines a much more literal transformation. As Marion Rust has also pointed out, Charlotte herself physically shrinks as her moral stature falls (xvii): when she initially catches Montraville’s eye, she’s described as a “tall, elegant girl,” but by the time he is turning over the decision to leave her in his mind, he describes his new lover as “the very reverse of Charlotte Temple: . . . tall, [and] elegantly shaped” (7; 53). To the extent, then, that Charlotte appears to be both socially and physically “diminish[ed]” by her time in America, Rowson’s novel does implicitly endorse Buffon’s position on the inherent qualities of American air—and also seems to illustrate what Nancy Armstrong has called the “racial logic of American sentimentalism” (1). For Armstrong, most interested in how Britons in the years surrounding the American Revolution reimagined their own situations in order to “remain English on the [American] side of the Atlantic,” Charlotte’s death in America illustrates how the social and political function of daughters would shift “whenever marriage outside a group threatens the group’s ties to the country of its origin” (10). Having been identified as “an object so valuable to the identity of the group that it can neither be taken nor traded away without threatening the group’s identity,” she explains, daughters thus invested “with the power of culture bearers” prove to be true Britons only when they cannot live outside the British family structure (11)—and so in Armstrong’s view, Charlotte’s death by exposure to the American atmosphere both affirms her status as a true and good daughter of England and illuminates the role that narrative (and in this case, sentimental) representation of exposure itself would play, throughout the eighteenth century, in consolidating the racial identities emerging on either side of the Atlantic.¹

At the same time, however, that the broad outlines of Charlotte’s story affirm both the predictive power of Buffon’s theory and Armstrong’s sense of the significance of this story might have held to Britons invested in distinguishing the subjects of the imperial margin and centre, the scene that treats the details of Charlotte’s exposure adheres much less closely to the conventions of this debate about the intrinsic qualities of American air—and Rowson’s intervention is both formal and thematic. Formally, for instance, Rowson’s treatment of extreme weather is unusual because she does not identify the weather Charlotte encounters as extreme in a relative sense. Although she begins by describing the aspects of the weather that can be assessed empirically, like precipitation and temperature, and she admits that Charlotte “found herself sinking with cold and fatigue before she reached the town” in part because “the snow fell so fast, and the cold was so intense,” Rowson doesn’t identify either of these qualities of the storm as superlative (80). Instead, she emphasizes the other aspects of Charlotte’s circumstances that conspire to turn this storm—otherwise typical for the time of year—into an

¹ In this regard, too, the weather of the present is the weather of the past. As a number of scholars of early American history have observed, this debate about American air anticipates and enables the scientific racism still used to justify the exposure of certain bodies to known environmental risks (Wheeler 263; Parrish 102)—and so, in the same way that the material storms of the present might be productively reframed as the consequences of past consumption, the quite different emergencies these and future storms will represent have equally deep roots in the uneven patterns of distribution and consolidation of resources initiated during the eighteenth century.

emergency: her pregnancy (as she is “unable from her situation to walk quick”), and her clothes (which, being “very improper habiliments for such a climate, but poorly defended her from the cold”) (80). As a result, the scene appears both to acknowledge that there are, in any experience of exposure, a potentially wide range of quantifiable conditions—the speed a person is able to walk, for instance—at work to amplify or mitigate the effects of the relatively smaller range of quantifiable conditions typically known as the weather, and so to suggest that this set of variables most often identified with the latter might be incomplete. Likewise, because the condition that receives the most attention in this scene is the weight of Charlotte’s “garments, which were merely suitable to the summer season, being an undress robe of plain white muslin . . . wet through, and a thin black cloak and bonnet” (80), her experience highlights the availability of shelter as an especially important element of the weather—and because these comments appear just as Charlotte arrives on the doorstep of Mademoiselle La Rue (now Mrs. Crayton), the overall effect of the scene is to align her former friend’s reaction, similarly thin and inadequate (“Take her away”), with both these unsuitable clothes and the absence of shelter in general (83). By establishing this parallel, that is, and thus prompting the reader to imagine how Charlotte’s experience of the same depth of snow might be different if only she had the right cloak for the season or a friend who would open her door, Rowson suggests that it’s only the protection Charlotte is missing that turns this snowstorm into a desperate situation.

The climax of the novel works in the same way, as the confrontation between Charlotte and Mademoiselle La Rue draws special attention to the fact that these two characters are experiencing the same meteorological conditions—except that they are standing on different sides of a threshold, the boundary that distinguishes the figure exposed from those safely protected from the elements. Charlotte herself draws attention to this dimension of their confrontation: “here on my knees I conjure you,” she cries, “to save me from perishing in the street” (82). By this point, Charlotte and Mademoiselle La Rue have travelled the same distance and conducted themselves the same way, breathing the same air throughout—and so here, it is only the absence of refuge, or the fact that one woman stands in the street and the other indoors, that determines which of these women will die. This contrast also raises a question: if shelter is available, why is it only available for some? By the end of the scene, this question hasn’t been answered—but where the narrator intervenes to define the most appropriate emotional response to this injustice, the contrast between that response and what Charlotte finds in Mademoiselle La Rue further suggests that this indifference towards the difference between them is part of the atmosphere that will kill Charlotte. After all, the narrator observes, “The kneeling figure of Charlotte in her affecting situation might have moved the heart of a stoic to compassion, but Mrs. Crayton remained inflexible,” saying only that “she did not know what trouble and expense she might bring upon her husband by giving shelter to a woman in [Charlotte’s] situation” (82). According to Mrs. Crayton, however, her responsibility to offer Charlotte shelter from the storm is no greater than her responsibility to shelter her husband from whatever “trouble and expense” might follow Charlotte, and so she would rather leave Charlotte exposed to both material and metaphorical “trouble” than invite any of these elements into her home (82). On each side of the threshold, then, Rowson’s characters appear to agree that weather is comprised of a totality of “trouble” above and beyond the depth of the

snow, and each admits her power to make that trouble worse for the other—and so to the extent that it is ever “the weather” that is responsible for Charlotte’s death, per Buffon’s hypothesis, the weather to which she succumbs here certainly includes both her former friend’s absence of compassion and fear of additional expense. By staging this exposure scene as a confrontation, furthermore, Rowson thus issues a challenge to those who would attempt to naturalize her heroine’s fall. If discussion of the politics of the weather in early America focused not on what is wrong with the air or wrong with the body that succumbs to it, but rather, as she proposes here, on why refuge seems to be so scarce for some, these scenes of dire exposure would appear not to reveal ever more evidence of inherent conditions or irreconcilable difference, but rather evidence of difference that can be resolved by the act of extending shelter—or weather, she suggests, that we can change.

As a response to one late eighteenth-century debate about the potentially degenerative effects of American air, then, Rowson’s treatment of her heroine’s death is remarkable because it acknowledges the possibility that the British traveller might be poorly prepared for the relatively more severe American weather, and yet does not suggest that evidence of this lack of preparation necessarily confirms anything about the inherent qualities of either the air or the body that succumbs to it. As an illustration of one approach to widening the definition of the weather, however, Rowson’s exposure scene is also of interest to contemporary ecocritics for its attention to the environmental risk created by wider social and political dynamics well within the power of her characters to change. In each case, as above, Rowson’s achievement is formal. From the parallel her exposure scene posits between the thinness of Charlotte’s clothes and the inadequacy of her friend’s response to the figure of the threshold that literalizes access to refuge as the most significant difference between these two women, this narrative representation of the weather both makes it possible to see aspects of the environmental risks Charlotte encounters that would have been invisible to an exclusively empirical model of the weather and, perhaps more importantly, invites the reader to consider how the risks suggested by empirical records of the weather might be incomplete in the absence of information about these other conditions. As a contribution, then, to the contemporary effort to come to see, in the weather, the wide range of other atmospheric conditions that ensure that not all bodies can breathe free (Sharpe 110-111), Rowson’s exposure scene offers two timely reminders. On one hand, her refusal to accept evidence of decline as an explanation for it might remind us that evidence of strange weather itself (or its anthropogenic origins) ought to be the beginning, not the end, of our analysis of the strangeness of the uneven conditions of exposure—and that these avenues of investigation can be complementary, rather than competitive. (We need not deny evidence that environmental risk is unevenly distributed, for instance, in order to demonstrate that some of the systems of power that justify that inequality are everywhere, or in the air we all breathe.) On the other hand, Rowson’s emphasis on the many conditions that her characters already have in common, or the narrow band of difference that the threshold represents, might also remind us to keep one eye, in the midst of this effort to visualize the invisible, on the details of the more equal world we aim to create, and the power we already have to change the weather to this end. If it is true, in Charlotte’s case, that an open door and invitation could turn a dire situation into a typical snowstorm, what other damage, of that whole “totality of our environments,” could we begin to mitigate today—if only we would claim

the agency suggested by this discovery that we have always made the weather for one another?

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