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Miasmatic Ghosts in Rebecca Harding Davis's 'Life in the Iron-Mills'

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Abstract:

This paper accounts for the Gothic elements in Rebecca Harding Davis's 'Life in the Iron-Mills' by contextualizing its references to ghosts within mid-nineteenth-century theories of miasma, industrial toxicity, and ghostology. I argue that we can read the ghosts in 'Life in the Iron-Mills' as manifestations of the mill's toxicity. Through their deaths, the mill workers become miasma-a nineteenth-century concept defined as the disease-causing effluvia emanating from organic rotting matter. The iron mill's hazardous air kills its workers, turning them into undead, disease-spreading agents. This process makes chemical and organic hazardous air indistinguishable in the narrative. Drawing on Stacy Alaimo's ecocritical framework of 'trans-corporeality,' I elucidate the constant exchange of material between workers' bodies and their toxic, 'ghostly' mill atmosphere. The Gothic, with its obsession over bodily boundaries, appositely describes this phenomenon. I show that the ghosts-as representations of dangerous air-have become 'real' for us. My reading of the ghosts as miasmatic also accounts for the story's ending: Hugh's death and reappearance to the narrator reveal his transformation into a specter comprised of toxicity. The narrator's impulse to write the story in the first place, I argue, arises from this toxic haunting.

Keywords: Miasma; trans-corporeality; material ghosts; realism; Gothic; Rebecca Harding Davis.

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Near the opening of 'Life in the Iron-Mills,' the narrator invites readers into the stifling atmosphere of an Appalachian iron-works town: 'I want you to hide your disgust, take no heed to your clean clothes, and come right down with me,-here, into the thickest of the fog and mud and foul effluvia. I want you to hear this story. There is a secret down here, in this nightmare fog, that has lain dumb for centuries: I want to make it a real thing to you' (Davis 1985: 13-4). The narrator recounts the tragedy of Hugh Wolfe, a coal-furnace tender, who kills himself in jail after keeping a wallet first stolen by his cousin, Deborah. Told in a journalistic style, the story has become well known as a landmark in American literary realism. The 'secret down here, in this nightmare fog' remains cryptic, however, and the narrator admits that s/he cannot articulate it: I dare make my meaning no clearer, but will only tell my story. It will, perhaps, seem to you as foul and dark as this thick vapor about us, and as pregnant with death' (14). As shown by the end of this quotation, the focus shifts to the mill's devastating air. In this smelting location, the smoke lingers 'everywhere,' 'clinging in a coating of greasy soot to the house-front, the two faded poplars, the faces of the passers-by' (12, 11). However, there are additional atmospheric hazards present besides smoke. The narrator makes this clear in the initial invitation. An entanglement of dense 'fog and mud and foul effluvia' surrounds and saturates the area and residents. Additionally, the 'stagnant and slimy' river contributes to 'all the foul smells ranging loose in the air' (13, 11). This 'nightmare' atmosphere becomes most vivid when the narrator describes the mill at night: 'crowds of half-clad men, looking like revengeful ghosts in the red light, hurried, throwing masses of glittering fire' (20). The hazardous air amalgam in 'Life in the Iron-Mills' forms an environment appositely characterized by dreadful phantoms.

The mill's imagery—both the effluvia and the specters—evokes miasma. In The Health of the Country, Conevery Bolton Valenčius describes nineteenth-century Americans' understanding of miasma as an 'unhealthy fog' (Valenčius 2002: 115). Miasmas 'could emanate from stagnant water, from earth, and from rotting objects. Transferring imbalance and ill health from the surrounding world to the interior of the human body, they were the causal mechanism whereby elements of the environment affected individuals' health' (114). Arising from decomposition, miasmas were famously thought culpable for diseases, such as cholera. Defining miasma in the nineteenth century also posed some challenges. Valenčius argues that miasma, as a concept, was 'difficult to capture' (114). Drawing a comparison to the supernatural, Valenčius suggests: 'Like malevolent sprites, miasmas were at once wispy and possessed of great power, ethereal in nature but chillingly tangible in effect' (114). Melanie Kiechle's definition of miasma in Smell Detectives explains why the experience was 'chillingly tangible': 'Foul odors portended the presence of miasma, the disease-causing effluvia released by rotting corpses and swampy environs' (Kiechle 2017: 5). In addition to other rotting matter, decomposing bodies became understood as channels for diseases, making miasma a macabre image, and resulting in portrayals including the undead, primarily ghosts. These mid-nineteenth-century depictions of miasma ground my contextualization of Davis's ghost references in 'Life in the Iron-Mills': The iron mill's industrial toxicity kills its workers, turning them into undead, diseasespreading agents.

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This phantasmal miasma reading also draws upon Davis scholarship that analyzes her Gothic references and narratives. Describing the mill's 'disturbing aesthetics,' Jill Gatlin asserts that the narrator 'pushes readers into the scene to disturb their sense of normalcy' (Gatlin 2013: 223). This 'sense of normalcy' certainly ruptures at the sight and mention of ghostly workers. Gatlin importantly reveals Davis's public health argument regarding industrial pollution in 'Life in the Iron-Mills'-an argument I show includes Gothic depictions of miasma. Working particularly with Davis's Gothic work in Peterson's Magazine, Alicia Mischa Renfroe explains that 'Davis constructed Gothic mysteries with sensational plots that critiqued myriad social issues' (Renfroe 2017: 205). Renfroe argues that Davis's Gothic narratives have been 'neglected in assessments of her long career' (205), and this claim partly explains the lack of critical response to the ghosts in 'Life in the Iron-Mills.' Regarding 'The Second Life,' which features the phantasmal, Renfroe explains that 'the specter provides a link between the Gothic tradition and Naturalism' (206). In 'Life in the Iron-Mills,' the specters likewise connect the Gothic to realism. Through ghost references, Davis's social critique in 'Life in the Iron-Mills' addresses both the smoke and the miasma, which become inseparable throughout the narrative: The hazardous air of the mill reproduces itself through the workers' deaths, decomposition, and subsequent miasma. The air is 'pregnant with death' at the mill (Davis 1985: 14; my emphasis).

While realism describes smoke readily, miasma requires Gothic language. At 'the heart' of the Gothic, Eugenia DeLamotte argues, is an 'anxiety about the boundaries of the self' (DeLamotte 1990: viii). Ingesting the effluvia of rotten matter-including the dead-means that selves trespass and become invaded simultaneously. The gothic also provided a form for narrating how unseen and frightening foreign elements could infiltrate familiar spaces,' explains Sari Altschuler, describing how Gothic narratives made the midnineteenth-century cholera epidemic visible (Altschuler 2017: 570). In The Sky of Our Manufacture, Jesse Oak Taylor makes a similar claim: the Gothic 'helps dramatize pollutions as both a literal substance and the defining attribute of industrial modernity' (Taylor 2016: 99). Resonating with DeLamotte's articulation that the Gothic obsesses over boundaries, Taylor adds, 'Atmospheric thinking reconfigures the relationship between interiority and exteriority' (68). Taylor draws upon Stacy Alaimo's ecocritical framework of 'transcorporeality,' as does my argument. For Alaimo, 'trans-corporeality' is the recognition that 'the human is always inter-meshed with the more-than-human world' (Alaimo 2010: 2). I use this concept to discuss the permeability of bodies and their atmospheres, as well as the porous boundaries between the living and the dead.

This paper answers Hsuan Hsu's call in 'Literary Atmospherics' to illustrate 'the materiality of air' (Hsu 2017: 2). Hsu asks, 'How does air transform bodies?' and 'what makes atmospheres become imperceptible or perceptible?' (4). Referring to literature including 'Life in the Iron-Mills' and Upton Sinclair's *The Jungle*, Hsu writes that these narratives 'depict spaces and bodies steeped in smoke, soot, and the odors of rendered meat' (3). In a reading focused on the atmospheres' (Hsu 2018). To accurately portray these bodily entanglements and exchanges with atmospheres presents numerous challenges. In 'Life in the Iron-Mills,' these difficult conceptions of atmosphere become apprehensible through the image of the specter. My article recovers this Gothic language in 'Life in the

Iron-Mills' by contextualizing miasma in its nineteenth-century supernatural configurations. The use of ghostly figures—as representations of hazardous air—calls for a reconsideration of the body's relationship to toxic, material atmospheres. Davis's Gothic language makes 'trans-corporeality' within toxicity not only visible, but paradoxically, a 'real thing.'

Nineteenth-century popular and medical sources provide further context concerning the toxic ghosts in 'Life in the Iron-Mills.' These sources describe ghosts materially. In the United States, attempts to explain ghostly phenomena took a scientific turn in the middle of the nineteenth century. Ghost sightings and scientific rationale were intertwined, according to Matthew Taylor: 'in the mid-to-late nineteenth century, ghosts and materialist science were mutually possessed, each haunted by the other' (Taylor 2013: 416). Sheri Weinstein describes this relationship as the link between nineteenth-century spiritualists and scientists, both searching for empirical evidence to corroborate spectral sightings. It is crucial to realize,' Weinstein argues, 'that scientific and spiritual discourses about the infinite possibilities of human vision and communication emerged in conjunction with one another' (Weinstein 2004: 131). The era's 'endless fascination with ghostology' appeared in articles, stories, and studies 'as likely to be conjured by Scientific American as by The Spiritual Telegraph' (Taylor 2013: 416). While the experiments and discoveries vastly diverged among those studying ghosts, similar methods were used: 'In each case, ghosts were given flesh-shades brought into the light-through association with known scientific laws and technologies' (417). In both scientific and popular discourse, specters consisted of matter, and this matter was considered dangerous.

The origins and composition of ghosts-according to nineteenth-century ghostology-elucidate further that ghosts were considered materially miasmatic. For this explanation, German and British sources on phantom sightings become necessary. The German scientist Karl von Reichenbach hypothesized that 'chemical manifestations . . . [were] emitted by the living human body and the decomposing human corpse,' and that this second source of emission explained the sightings of 'some ghosts and spectres' (Henson 2000: 10). The emission from corpses took the form, Reichenbach asserted, of a 'luminous vapour,' which he claimed to see in various cemeteries at night. He even declared that he could estimate the amount of this vapor near cemeteries based upon the number of bodies interred there (11). This vapor was thought to be a source of foul air that the living breathed in and from which they became ill. In Britain, Charles Dickens's All the Year Round 'regularly' reflected concerns about ghosts in London and abroad, as the publication often 'detail[ed] the ways in which science sought to naturalize the ghost' (10). While some Londoners hypothesized that the living were 'drinking their dead neighbours' from wells near graveyards (12), others thought of the dead as in the air itself. In May of 1860, Dickens-whose novels, especially Hard Times, significantly influenced 'Life in the Iron-Mills'1-illustrated how the dead are ever-present in enclosed spaces: 'We stamp our feet to warm them, and dead citizens arise in heavy clouds' (14). Note the atmospheric and trans-corporeal insinuations of Dickens's language: the dead become a part of the material we inhale.

In Chicago one year earlier, Dr. John H. Rauch had described the dead similarly. Like Kiechle's characterization of miasma, Rauch's explanation specifies human agents. In 1859, Rauch prepared his 'report on the dangers of urban burials,' citing that they contain 'miasma-generating elements' (Szczygiel and Hewitt 2000: 723, 718). While Rauch does not explicitly link 'ghosts' to the miasma dispersed at cemeteries, his descriptions use the language of ghostology. In his report, Rauch claims that 'the emanations of the dead are injurious to health and destructive to life' (Rauch 1866: 24). Moreover, Rauch's descriptions of the foul air often echo Reichenbach's: 'It is not mere aqueous vapor that is thus discharged,' Rauch explains, 'but effluvial animal matter is mixed with or dissolved in it, a matter which, upon being condensed, is found to be of a highly putrescent and rapidly decomposable nature' (25). For Rauch, the vapor accounts for illness; for Reichenbach, the 'luminous vapour' explains illnesses as well as ghost sightings. Both descriptions stress that material vapor arising from the dead causes diseases. A strong association between miasmas and ghosts becomes clear: Nineteenth-century ghostology conjures miasma while conceptions of miasma evoke the phantasmal.

As this expansive discourse on ghostology historically contextualizes 'Life in the Iron-Mills,' this discourse also frames the narrative's immediate context in the Atlantic Monthly. Notably, the Atlantic Monthly was reluctant to publish ghost stories, unlike Peterson's Magazine, where Davis published numerous Gothic tales before and after 'Life in the Iron-Mills." While the Atlantic Monthly did not necessarily publish 'Gothic horror,' the publication regularly published pieces with scientific explanations for contemporary wonders, such as the aurora borealis in the December 1859 issue. In the December 1860 issue-four months before Davis's 'Life in the Iron-Mills' appeared in the Atlantic Monthly—the magazine published Bayard Taylor's 'The Confessions of a Medium.' Taylor critiques Spiritualism in this short story, while referencing 'Animal Magnetism' and 'spiritmatter,' both of which indicate the materiality of specters. The story also distinguishes true mediums from false ones through repeatable 'experiments,' as it offers a 'partial explanation of the spiritual phenomena' (Taylor 1860). Ultimately, the short story parodies the medium role and demystifies ghost sightings, such as the infamous 'Rochester Knockings.' This immediate context in the Atlantic Monthly, in addition to Davis's numerous Gothic publications in Peterson's Magazine, reveals that featuring ghosts in the journalistic narrative, 'Life in the Iron-Mills,' should not be altogether surprising. Rather than function as parody, however, the ghost references in Davis's story are constructed as educational and startling.

Indeed, characters in 'Life in the Iron-Mills' become informed and then alarmed about phantasmal toxicity. The ghosts in this narrative evoke the 'real' mechanics of dangerous air. One character who learns this firsthand is Mitchell. When Mitchell—a relative of the mill owner's son, young Kirby—sees the mill at night, he first describes the 'smouldering' scene as 'ghostly, unreal' (31). We cannot, however, take Mitchell's juxtaposition of 'ghostly' and 'unreal' as an accurate description. Gatlin reads Mitchell's assessment as invoking the ghost image to ignore the 'disturbing aesthetics' of the iron mill: 'Refusing to confront the physicality of disgust, Mitchell substitutes an image corresponding with a classic aesthetic standard and continually reduces the mills to cliché' (223). Mitchell even announces that he 'like[s] this view,' referring to the smoldering mill (30). Kirby's response to Mitchell, however, significantly shifts Mitchell's description from 'unreal' to 'real.' Kirby explicitly questions Mitchell's claim that the scene is *unreal*: 'These spectral figures, as you call them' Kirby asserts, 'are a little too real for me to fancy a close proximity in the darkness' (31). Note that Kirby does not necessarily question Mitchell's use of Gothic language. He questions Mitchell's assessment that these ghosts are not real. Directly after Kirby's response to Mitchell, they come across another 'ghostly' scene. This time, Mitchell responds in fear when he sees 'a woman, white, of giant proportions, crouching on the ground, her arms flung out in some wild gesture of warning' (31). This is, of course, the sculpture carved by Hugh Wolfe from korl—the byproduct of iron smelting. When he sees the figure more clearly, 'Mitchell drew a long breath.' I thought it was alive,' Mitchell confesses (31). Since this occurs immediately after his conversation about specters, and because he uses the word 'it' to describe the large, white figure, Mitchell momentarily believes he sees a real phantom. The ghosts of the iron mills have become, even if only momentarily, a 'real thing' for Mitchell, as the specters had been 'too real' for Kirby.

Another noteworthy aspect of Mitchell's and Kirby's dialogue is that Mitchell uses Gothic language to describe the environment (as 'ghostly'), while Kirby uses Gothic language to describe the workers (as 'spectral figures'). Using Alaimo's 'trans-corporeality' framework, boundaries between the human and the non-human become difficult to distinguish. The workers and their environment mesh together. Quoting Linda Nash, Alaimo draws upon a particularly nineteenth-century configuration of the body's relationship to its surroundings-a belief that the 'body is characterized by its "permeability," "a constant exchange between inside and outside, by fluxes and flows and by its close dependence on the surrounding environment" (116). In Mitchell's and Kirby's dialogue, this conflation between person and place happens more than once. Mitchell references ghosts twice: once to describe the fires of the mill ('ghostly, unreal') and again to describe the workers. Looking at the mill, Mitchell continues to interpret his view: 'One could fancy these red smouldering lights to be the half-shut eyes of wild beasts, and the spectral figures their victims in the den' (31). Kirby's use of 'spectral figures' echoes Mitchell's interpretation. While it may seem strange at first that Mitchell portrays the spectral in an environment of flames, recall that Reichenbach, in his observations of cemeteries, describes the chemicals rising from the graves as a 'luminous vapour.' In other observations, he describes this vapor as 'fiery' and also as a 'breathing flame' (Henson 2000: 11). Mitchell's use of 'ghostly' refers to the environment of the mill: the combination of 'heavy shadows' and 'smothered fires.' His use of 'spectral figures,' however, refers to the workers in front of a glowing smelting flame, where they would appear as silhouettes. The 'smouldering lights,' or 'eyes of wild beasts,' make the 'spectral figures their victims.' Therefore, the spectral figures suffer from that ghostly, industrial environment and then they replicate that same environment. The industrial air 'flows' into individuals, reproducing its dangerous air by transforming the workers into the undead-corpses that will spread miasma.

Two additional references to ghosts appear in close proximity near the beginning of the narrative. When Deborah—Hugh Wolfe's cousin—first sees the workers at the mill, the narrator describes them as ghosts in Hell. Significantly, this is the first description of the workers. In a scene that mixes specter and warlock imagery, which I have partly shown, Deborah sees 'wide caldrons filled with boiling fire, over which bent ghastly wretches stirring the strange brewing; and through all, crowds of half-clad men, looking like revengeful ghosts in the red light, hurried, throwing masses of glittering fire. It was like a street in Hell' (20). Here, as with Mitchell's and Kirby's conversation, the workers' bodies appear in a material exchange with their environment: both have become hellish. The ghost-workers, stirring over the caldrons like sorcerers, have become their environment. The term 'revengeful' is indeed significant, as it not only describes the workers' attitudes towards the mill but also resonates with depictions of miasma in the period. Again, returning to All the Year Round's scientific understandings of ghosts, revenge played a significant part in the metaphoric explanation of corpses spreading disease through their ghost-like vapors. This explanation relied heavily on folklore of the period: 'The dead return from the grave,' one article explains, 'like restless and vengeful ghosts' (Henson 2000: 12). This explanation of miasma educates readers as Davis's own use of ghosts does. When the narrator again references ghosts, s/he juxtaposes real-life encounters and 'ghost Horror' narratives: 'If you could go into this mill where Deborah lay, and drag out from the hearts of these men the terrible tragedy of their lives, taking it as a symptom of the disease of their class, no ghost Horror would terrify you more' (8). Why, then, does the narrative use ghosts to explain the realities of industrial toxicity? 'Life in the Iron-Mills' must be 'no ghost Horror' fabrication, and the ghost references must not be in tension with the journalistic style. Rather, these ghosts function within Davis's realism to make the material, hazardous air vivid and terrifying.

The workers in the mill, our narrator explains, are neither fully alive nor dead; moreover, those who share the workers' air also transform into ghosts. When the narrator describes the 'terrible tragedy' of the workers' lives, s/he explains that the men resemble a 'living death' (23). I would argue that this condition spreads like a disease in the story, as the nineteenth-century miasma theory supports. The narrator describes our protagonist, Hugh Wolfe, as a member of the living dead: 'his muscles were thin, his nerves weak,' and his face was 'yellow with consumption' (24). During Hugh's transformation to a specter, he endures 'bleeding at the lungs' and a 'death-cough,' illustrating his material exchange with his atmosphere (52). Deborah, who does not work at the mill as Hugh does, has ghost-like features, too. The narrator specifically remarks that the 'woman named Deborah was like him,' referring to Hugh. The difference, however, is that she seems even closer to death at the story's beginning: 'only her face was even more ghastly, her lips bluer, her eyes more watery. She wore a faded cotton gown and a slouching bonnet. When she walked, one could see that she was deformed, almost a hunchback. She trod softly, so as not to waken him, and went through into the room beyond' (16-7). Other direct ghost references in the story invite the reading that Deborah also transforms into a ghost. The narrator encourages this interpretation of Deborah: Crouched over with a light-colored cloth covering her body and her head, Deborah treads quietly, nearly floating across the floor.

The atmosphere of the Wolfes' home partly explains Deborah's transformation, because its description invites the same trans-corporeal lens that the ghostly scenes of the mill do. The cellar, in particular, has 'a fetid air smothering the breath' (16). Miasmatic air—coming from the dead, specifically—was considered easily trapped in confined spaces, like this cellar. The use of 'fetid' to describe the air is especially provocative of decomposition, which could simply refer to decaying matter in this cellar. However, the

house's proximity to the mill, as well as the inhabitants' traveling back-and-forth from the mill, creates the possibility that hazardous air spreads to this home and saturates it. In an article in *All the Year Round* named 'Sanitary Science,' the following appears nearly tonguein-cheek, but it is applicable here: 'Your only exorcist is a sanitary engineer' (Henson 2000: 14). Deborah and Hugh, put another way, intake the air of the mill in their own bodies and bring it into their homes, where it becomes trapped and dense over time. The home itself becomes a site of toxicity for both Hugh and Deborah, transforming them both further into toxic ghosts. The hazards of industry cannot be separated from the home. As Kiechle explains, 'Thinking about air requires considering the insides of homes as well as a city's streets, waterways, and parks. Too often our histories stop at the threshold . . .' (16). With a trans-corporeal reading, this threshold vanishes as there are no boundaries for hazardous air—both chemical and organic.

This dangerous air is likewise not confined to the time of Hugh's experience. In the narrative's preface, the narrator witnesses and describes phantasmal transformations taking place right outside the window. Even at this early point in the narrative, before any ghost references, the narrator describes those passing by as if they are a part of a haunting: 'Something of the same idle notion comes to me to-day, when from the street-window I look on the slow stream of human life creeping past, night and morning, to the great mills' (12). Those who work in the iron mills do not walk by, they creep by. Importantly, the narrator uses the term 'creeping' on four different occasions, each of which insinuate ghostly movement or even death during life. For example, Deborah describes those transforming into a 'living death' by using the term 'creeping': 'That gray shadow,—yes, she knew what that meant. She had often seen it creeping over women's faces for months, who died at last of slow hunger or consumption. That meant death' (53). This 'creeping' shadow illustrates most clearly, aside from the direct references to ghosts, the ghostly transformations of the people working or residing near the mills during and after Hugh's lifetime.

Davis's intervention in these ghostly transformations is to expose that industrial toxicity has no benefits. As Gatlin explains, Davis's narrative put her at odds with proindustrial arguments: 'Entering a debate that would remain contentious for the next halfcentury,' Gatlin explains, 'Davis counters idealized claims linking smoke to economic equality, progress, and health. She portrays pollution not as a source of awe or a sign of wealth, nor as simply a nuisance or an annoyance, but rather as a lethal hazard to laborers' (203-204). A web of influences kept the iron mills open. 'Physicians declared,' for example, 'coal smoke not only "*anti-miasmatic*" but also, "from the carbon, sulphur and iodine, . . . highly favorable to lung and cutaneous diseases'" (Gatlin 2013: 213). As I have argued, bodies in this environment soon become lethal sources themselves through miasma. Industrial toxicity, for Davis, did not combat miasma; rather, the mills expedited and increased miasma.

This entanglement of toxic atmospheres and bodies becomes even more apparent in the descriptions of the mill's material air. The narrator describes the residents near the mill as 'breathing from infancy to death an air saturated with fog and grease and soot, vileness for soul and body' (12). The air is not simply sooty, but also foggy, greasy, and vile. The miasma exists within a hazardous mixture that is difficult to disentangle. The descriptions, at first, all sound like by-products of iron smelting. However, the narrator also describes the air as foul due to the mass of people: 'The air is thick,' we learn, 'clammy with the breath of crowded human beings' (11). The adjectives that appear to describe iron smelting also have 'human' qualities. The use of 'fog,' for instance, appears in *Bleak House* to describe the foul air coming from a group of 'hoary sinners' (Henson 2000: 15). In addition, 'grease'—while a common adjective for soot—also stands out as having 'human' qualities. Living near the mill, and thus ingesting its fumes, the breath of humans is suspect and indivisible from the toxicity of the mill. The poor air quality, already difficult to define at the start, becomes altogether a 'nightmare fog' (13). The nightmare in the story appears as the inability to disentangle the corporeal from the industrial, the organic from the chemical, the human from the non-human, and especially the living from the deceased.

Consider also how the narrator's invitation reflects Dr. Rauch's eerie report on the Chicago cemetery. 'I want you to hide your disgust, take no heed to your clean clothes,' the narrator beckons, 'and come right down with me,—here, into the thickest of the fog and mud and foul effluvia' (13). The narrator's directions here are telling. Why is it that we must go 'down' with the narrator to view the 'foul effluvia'? It appears that we are stepping into a grave. Two years prior to 'Life in the Iron-Mills,' Dr. Rauch's report on the Chicago cemetery claimed that 'emanations or effluvia from dead bodies, or the exhalations and exudations of living but diseased bodies, may excite in the fluids of the system fermentative action, resulting in functional derangement or organic lesion' (Rauch 1866: 28). Rauch's report eerily mirrors the narrator's reference to effluvia and to the air being 'thick' with 'crowded human beings.' The flow of material air between the living functions like the air flow between the living and the dead.

Hugh's korl sculpture adds to the story's focus on permeable bodies. Gatlin's description of this byproduct, the korl, elucidates its trans-corporeal nature in the comparisons between it and the workers: 'the story calls attention to waste—be it soot, smoke, korl, or workers—and refutes the assumption that it is categorically valueless . . .' (219). The korl is like the workers and the smoke because they are all byproducts. This likeness moves beyond simile: The workers and the korl share material properties. Thomas Fick, in his article 'Authentic Ghosts and Real Bodies,' describes nineteenth-century ghost stories written by women in a similar, material fashion: 'the supernatural is frequently the natural in masquerade. I mean this quite literally' (Fick 1999: 82). Similarly, these ghost workers are 'literally' replications of the mill's toxic air. These workers are also indistinguishable from the korl:

In the neighboring furnace-buildings lay great heaps of the refuse from the ore after the pig-metal is run. Korl we call it here: a light, porous substance, of a delicate, waxen, flesh-colored tinge. Out of the blocks of this korl, Wolfe, in his off-hours from the furnace, had a habit of chipping and moulding figures. (24)

This description of the korl evokes the human body's permeability. The korl, as Gatlin claims, is a form of 'waste,' like the workers. The narrator's description takes the comparison a step further by describing the korl not simply as skin-like but indeed having 'porous' skin. When Hugh chips away at the korl, he further animates it by creating

'figures.' The korl woman, of course, is the korl figure with the most attention in the story. By creating this figure, Hugh has uncovered a porous body from the smelting pit—one that can exchange materials, including 'human' materials, with others and its environment.

This human-like quality of the korl woman accounts for the narrator's initial unease with the figure. The narrator confesses to keeping the korl woman 'hid behind a curtain' (64). S/he explains that s/he hides it because it is a 'rough, ungainly thing' (64). Yet, the narrator reveals that the sculpture is not a 'thing' at all, but Hugh Wolfe. Sometimes, when the narrator uncovers the statue 'at night,' s/he sees 'a bare arm stretched out imploringly in the darkness, and an eager, wolfish face watching [his/hers]' (64). It seems no coincidence that the face is described as 'wolfish,' for it is the face of Hugh Wolfe. The narrator continues: s/he sees 'a wan, woful face, through which the spirit of the dead korlcutter looks out, with its thwarted life, its mighty hunger, its unfinished work' (64).³ The narrator's fear and fascination-as shown by purposefully and repeatedly bringing the sculpture out at night-regards the 'spirit' of Hugh, which looks through the porous face of the sculpture. Hugh's death completes his full transformation into a specter. Hugh, as described by the narrator, has seeped into the pores of the statue, as the iron smelting byproducts had seeped into him before his death. Recall that at the opening of the narrative our narrator speaks in riddles, suggesting that s/he 'dare not put this secret into words,' even though no 'secret' has been previously divulged. The riddle becomes layered: 'It is this: that this terrible dumb question is its own reply; that it is not the sentence of death we think it' (14). Perhaps the narrator simply refers here to the 'great hope' s/he has in an afterlife (14). However, shortly after this 'great hope' articulation, the narrator again brings up the 'secret,' exploring why s/he chose to tell Hugh's story: 'Perhaps because there is a secret, underlying sympathy between that story and this day with its impure fog and thwarted sunshine,—or perhaps simply for the reason that this house is the one where the Wolfes lived' (14-5). The narrator is staying, it appears, in the Wolfes' home, and a connection between Hugh's experience and 'this day' is the 'impure fog.' That is, Hugh's continued, ghostly presence haunts the narrator. The characterizations of the sculpture make that continued presence clear.

Hugh's suicide has been a point of discussion in numerous critical readings. Some point to his artistic 'hunger,' as shown by the korl woman's outstretched arms, while others read the ending as simply flawed (Rose 1990: 196, 188). In addition to an artistic hunger, I would argue that the hunger is for alternative air. In Davis's novel *Margret Howth*, published one year after 'Life in the Iron-Mills,' she directly describes the mill worker's hunger for clean air. In Jean Fagan Yellin's analysis of the novel, this hunger becomes a focal point. Yellin explains: 'A child laborer in the mill from age seven to age sixteen, Lois's health and her wits were destroyed, she reports, by "th' air 'n th' work"' (Yellin 1990: 209). The explicit reference to hunger occurs with Stephen Holmes's character: Holmes's 'hungry insatiate soul,' we are told, demands 'air and freedom and knowledge' (208). The hunger of the korl woman indeed represents many items: actual hunger for food, artistic hunger, 'Deb's love-hungry soul' (Scheiber 1994: 107), among others. A hunger for air appears as likely as these.

My reading so far has pointed out Hugh's transition to a specter, or his death-in-life, while working in the iron mill. Hugh's inability to escape from iron, I argue, leads to his suicide. As if fully becoming the mill's toxicity, which has seeped into his skin, becoming

a ghost is his only way to escape confinement. When Hugh is in jail, the word 'iron' is used numerous times to describe what locks him inside: the irons are put on his legs and he looks out of iron bars. When Deborah can look at Hugh, she sees his futile attempts to escape iron and overhears cruel words:

He was scratching the iron bars of the window with a piece of tin which he had picked up, with an idle, uncertain, vacant stare, just as a child or idiot would do. "Tryin' to get out, old boy?" laughed Haley. "Them irons will need a crow-bar beside your tin, before you can open 'em." (52)

Haley explains to Hugh the toughness of iron, even though, in a brutal turn of irony, Hugh is trapped by the very substance that he spent his life smelting. Critics have noted this irony explicitly: 'For Davis, the *ironic* naturalistic symbol is iron itself. Hugh has completely assimilated the values of the iron-mill's owners, and he carries those values with him throughout the core narrative' (Harris 1989: 15). There is no real escape for Hugh, as 'he is scarcely less free as a prisoner in the cell than he had been as a laborer in the mill' (Sonstegard 2004: 106). Although the iron mill instigated his transition to a ghost, Hugh's only available form of action at this point is to complete the transformation himself. When the narrator prefaces Hugh's suicide, s/he says that it was 'as if he should never hear human voices again' (58). The modifier 'human' seems odd in this sentence, as if Hugh will still hear 'voices,' but not human ones. When Hugh kills himself, or when the 'hour was over at last,' the narrator describes Hugh's vision as turning to vapor. All the people Hugh sees when he dies, all of whom had been described as ghostly before, 'floated together like a mist, and faded away, leaving only the clear, pearly moonlight' (60). While the narrator does not describe Hugh as becoming the 'mist,' everything fading to mist in his sight likewise evokes his ghostly transformation. The act is indeed one of agency: 'The iron industry's demands had always shaped Hugh, and now he uses those same tools, sharpened by the same ore, to "carve" himself and allow his spirit's escape' (Sonstegard 2004: 106). His acceptance of the body's porousness, in addition to expediting its increased permeability, leads to Hugh's release.

The 'escape' is not necessarily an optimistic one, of course, as, with my line of reasoning, Hugh has become toxicity more fully. An optimistic reading of Hugh's suicide would fashion Davis's story as anticipating the ghost stories of the next few decades, where, '[i]n the supernatural fiction of the later nineteenth century, death began to bring freedom: shackles, silence, and regret were cast aside, and ghosts became active figures empowered rather than constrained by their deaths' (Bann 2009: 664). Even though at the moment of Hugh's death he sees the moon in a scene evoking freedom, recall that the spirit of Hugh also resides within the korl waste of the iron smelting, peering out at the narrator. While he rejoins his artwork, which could signify a kind of freedom, Hugh only becomes active in the sense that he can now stare at the narrator and encourage the narrator to write. Hugh remains toxic.

Hugh cannot escape his miasmatic future, even if he experiences a different, material air after death. When the Quaker woman arrives, she brings a 'vase of wood-leaves and berries,' which momentarily transforms Hugh's room (61-2). As if emerging from a

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separate atmosphere, as Hsu suggests (2018), this 'fresh air' reaches Hugh: 'The fresh air blew in, and swept the woody fragrance over the dead face. Deborah looked up with a quick wonder' (62). This is the first positive description of air given in the story. As if believing that Hugh could benefit from 'fresh air' after death, Deborah insists that he should be buried where there is plenty of alternative air: 'Take hur out, for God's sake,' Deborah tells the newly arrived Quaker woman, 'take hur out where t' air blows!' (62). No amount of 'fresh' air can help Hugh now, or prevent miasma. In fact, wind simply scattered the miasma from rotting matter. Rauch suggests a similar idea in his report: 'Failing to be absorbed or decomposed, [the effluvia] pass into the air and spread infection in whatever direction the winds may waft them' (Rauch 1866: 22). The ground's own permeability becomes clear. The narrator in 'Life in the Iron-Mills' likewise links the grave and the sky by calling both 'muddy.' Deborah worries that they will bury Hugh 'under t' mud and ash' (62). In the narrator's opening, the mud saturates the horizon: 'The sky sank down before dawn, muddy, flat, immovable' (11). As far as the narrator can see, the sky reflects the grave; the air remains 'pregnant with death.'

These references to hazy horizons complicate the narrative's hopeful ending: 'the promise of the Dawn' (65). The references to toxic specters likewise challenge the story's other religious parentheticals. Some have read the story as a Christian conversion narrative, and if anyone appears converted by the Quaker woman at the end, it is Deborah, who, as our narrator tells us, goes to the meetings after Hugh's death. Interestingly, Deborah's appearance improves by going to these meetings, but the narrator hints that this is because the house where the meetings are held is where the 'light is warmest, the air freest' (63). 'But while this Christian hope for personal immortality may be a hope for the broken spirit of Deborah,' William Shurr argues, 'it is no hope for the narrator' (Shurr 1991: 245). It is likewise no hope for Hugh. If the story is a religious conversion narrative, the conversion does not arrive on time. The Quaker woman acknowledges this failure to Deborah when she says, 'I came too late, but not for thee' (63). Beth Doriani writes that '[t]he entry of the Quaker woman begins what seems like a long postscript to the story. All in all, the religious solution to the problems raised in the story seems to fall short' (Doriani 1997: 182). I agree that the 'religious solution' does not satisfy the narrator, as s/he continues by describing Deborah's new surroundings before the spiritual change: She experiences 'long years of sunshine, and fresh air, and slow, patient Christ-love' (63). Deborah may well experience a religious conversion, but she also experiences an atmospheric conversion.

The final words of the narrative promise a transformed atmosphere, but the korl statue—the smelting 'waste' with the ghost of Hugh peering through—points towards it. As 'its groping arm points through the broken cloud to the far East' (65), the narrative's Gothic language points towards a clearer understanding of industrial pollution. If the narrator only suspects that Hugh haunts the home at the beginning of the story, by the end, the narrator has fully recognized this Gothic haunting. 'While the room is yet steeped in heavy shadow,' the narrator writes, just after the Quaker interlude, 'a cool, gray light suddenly touches [the korl statue's] head' (65). The personified 'cool, gray light' appears welcome in this final scene, even though it is ghostly. The ghost has become the narrator's new reality and also the most suitable image to realistically represent the body's entanglement with its toxic environment. Sharon Harris describes the scene in similar

terms. This ending 'will again draw on the language of romanticism but will contextually demand a rethinking of the issues in decidedly realistic terms' (Harris 1989: 6). All the narrative's specters, I would add, have become 'real' for us (Davis 1985: 14). As Jesse Oak Taylor explains, 'modernity is haunted' and its material atmosphere reveals its 'ghostly residue' (44). Challenges abound for illustrating the body's role within a 'thick' mixture of hazardous air—a material with an untraceable and indistinguishable combination. The Gothic language of specters—with its own uninhibited intrusion into realistic stories strikingly mirrors the movements of dangerous air into and from the body. The specter completes the final action of the narrative in pointing to the dawn, and whether this ghost is Hugh or another, this image reinforces not only the entanglement of the body with its environment, but the entanglement of the dead with the living.

Notes

¹ On this point, see Arielle Zibrak's 'Writing Behind a Curtain: Rebecca Harding Davis and Celebrity Reform' (2014: 531-32) and David Bordelon's 'Blackpool on the Picket Line: *Hard Times* Goes Viral in Nineteenth-Century America' (2017: 55-6).

² See Sharon M. Harris's 'The Anatomy of Complicity: Rebecca Harding Davis, *Peterson's Magazine*, and the Civil War' (2011: 300) for a discussion on this point of difference for the *Atlantic Monthly* and *Peterson's Magazine*.

³ See Sonstegard's (2004) analysis (especially 104-5) on the significance of the sculpture being a woman and Hugh Wolfe being described as having a 'woman's face' (Davis 1985: 24). Like other categorizations in this text which I have analyzed, the 'categories of male and female' become indistinguishable (Sonstegard 2004: 104).

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