CHAPTER 15

Extraction, Exhaustion, and the Sensation Novel of the 1860s

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The 1860s started off with a bang, and not in a good way. On March 2, 1860, an explosion at the Burradon Colliery, just north of Newcastle, killed seventy-six boys and men, ages 10–59. In December that same year, an explosion at the Hetton Colliery, six miles from Durham, killed twenty-two miners, ages 16–62. Also in December 1860, an explosion at the Risca Colliery in Wales resulted in the deaths of 146 boys and men, ages 10–55.[1] These represent just a few of the dreadful mining disasters caused by firedamp (methane) explosions in British mines in the year 1860, and they represent an even smaller portion of all mining accidents that year, but this record of disaster suggests how collective life in 1860s Britain was punctuated by sudden, fatal, widely reported explosions and other underground accidents that could destroy a whole mining community in but a moment.[2]

The disasters at Burradon, Hetton, and Risca Collieries remind us that central to understanding the 1860s is the history of extraction and the nineteenth-century rise of extraction-based life, a social order premised on the removal of subsurface resources and especially on the coal economy.[3] The 1860s saw the simultaneous upsurge in an economic discourse around coal exhaustion in Britain, thanks to the 1865 publication of William Stanley Jevons's influential study *The Coal Question: An Inquiry Concerning the Progress of the Nation, and the Probable Exhaustion of Our Coal Mines*, and the expansion of overseas imperial extraction projects following such momentous 1860s events as the "discovery" of diamonds (1867) and gold (1869) in South Africa.[4] Jevons's book predicted an imminent exhaustion of British coal within generational timespans, while the frenzied rush for South African and other colonial mineral resources kicked off a new stage of imperialist activity. These domestic and overseas extraction projects were not unrelated, since fears of domestic exhaustion increased the will for imperial expansion, while the energy needs required for overseas expansion increased demand for domestic coal. Together, these interconnected domestic and overseas extraction projects played a meaningful role in the shaping of literary writing.

This chapter will trace the 1860s development of a new idea of the British Empire as premised on exhaustible underground materials and as globally interconnected through the networks of extraction capitalism, and it will describe the impact of this idea on the genre that is perhaps most associated with the 1860s: sensation fiction. After an overview of the chronotope of exhaustion and its debt to economic and geopolitical discussions of extraction in this period, I will turn to two well-known sensation novels that are both premised on extractive plots: Mary Elizabeth Braddon's *Lady Audley's Secret* (1862) and Wilkie Collins's *The Moonstone* (1868). Although widely discussed in Victorian literary criticism, sensation fiction has not, as yet, drawn much attention as an environmental genre or as a genre grounded in environmental history and environmental relations, but Braddon's and Collins's popular and widely read novels convey the centrality of extraterritorial (overseas) extraction to Britain's conception of national life in the industrial era.[5] By the 1860s, the threat of resource exhaustion in the context of an extraction-based economy and society had reoriented culture and discourse toward the necessity of overseas extraction. The sensation plots of *Lady Audley's Secret* and *The Moonstone* are initiated in both cases by a precious mineral resource from the colonies, suggesting the extent to which British national life was, by the 1860s, imagined to be fully dependent on extraterritorial mineral inputs.

My goal is to establish the part sensation fiction played in mediating the new stage of industrial extractivism that Britain had reached by the 1860s, in the aftermath of the mid-century Californian and Australian gold rushes and in the thick of national discussions about the demise of Britain's coal stock. In *The Great Derangement*, Amitav Ghosh has argued that the environmental chaos of industrial modernity, especially climate change, has been at best unacknowledged, at worst concealed, by "serious fiction" because of realism's fundamental reliance on the idiom of probability, and he returns continually to nineteenth-century realism to prove his point. To introduce environmental actors into a novel, he says, would be "to court eviction from the mansion within which serious fiction has long been in residence; it is to risk banishment to the humbler dwellings that surround the manor house … 'the Gothic,' 'the romance' or 'the melodrama'."[6] As one such humble dwelling among the lesser houses of fiction, sensation fiction is more concerned with feeling, coincidence, and circumstance than with probability, and it is perhaps for this reason that the booms and busts of overseas extraction translate so well into novels like

Lady Audley's Secret and *The Moonstone*, which register the explosive feelings – and imperial liabilities – of the extractive era. To read sensation fiction as an environmental genre, then, is to read its particular attunement to the volatile rhythms and destructive potential of extraction-based life.

The Chronotope of Exhaustion

Mikhail Bakhtin uses the term chronotope to describe the interworking of temporal and spatial dynamics in a narrative text:

> A literary work's artistic unity in relationship to an actual reality is defined by its chronotope. … In literature and art itself, temporal and spatial determinations are inseparable from one another, and always colored by emotions and values. Abstract thought can, of course, think time and space as separate entities and conceive them as things apart from the emotions and values that attach to them. But *living* artistic perception … makes no such divisions and permits no such segmentation. It seizes on the chronotope in all its wholeness and fullness.[7]

What is the chronotope of the sensation novel? In the second paragraph of *Lady Audley's Secret*, we are introduced to the village clock that will reappear throughout the narrative, a "stupid, bewildering clock, which had only one hand; and which jumped straight from one hour to the next, and was therefore always in extremes."[8] The story of *The Moonstone*, meanwhile, begins in the eleventh century, eventually turning to its focal plot which takes place in the revolutionary year of 1848. In both books, these extremes of time are matched by extremes of space, as the domestic plots of both *Lady Audley's Secret* and *The Moonstone* are shown to hinge on precious underground mineral resources from Australia and India. The chronotope of the sensation novel, then, counterbalances the remote frontier with the seemingly unchanging English village and its "sluggish course of rural time" (Braddon, 272), and it situates thrilling and improbable plot events within extreme lengths of time and space. The dual setting of the colonial extraction plot, which connects the site of extraction (Australia and India) to the English provinces where the narratives primarily unfold, connects *The Moonstone* and *Lady Audley's Secret* to the logics of overseas extraction and the booms and busts of global resource scrambles in the industrial era.

If the sensation chronotope of the 1860s is connected to the heightened discourse around overseas extraction during this decade, it is also connected to the threat of coal exhaustion. Surfacing even in works seemingly unconcerned with mundane questions of material resources, like Matthew Arnold's *Culture and Anarchy* (1869), the subject was everywhere:

> Every one must have observed the strange language current during the late discussions as to the possible failure of our supplies of coal. Our coal, thousands of people were saying, is the real basis of our national greatness; if our coal runs short, there is an end of the greatness of England. But what *is* greatness? … what an unsound habit of mind it must be which makes us talk of things like coal or iron as constituting the greatness of England, and how salutary a friend is culture, bent on seeing things as they are, and thus dissipating delusions of this kind.[9]

The "strange language" of exhaustion referred to by Arnold may not have originated with Jevons's *The Coal Question* in 1865, but on the wings of that volume, it expanded into numerous "late discussions," as Arnold describes. Jevons is remembered today as a major figure in the marginal revolution, when political economy became more grounded in mathematics and more attentive to supply, demand, utility, and consumption as bases of value that were ultimately psychological in nature. In *The Coal Question*, Jevons expressed a vision of civilization fundamentally different from Arnold's: "Day by day it becomes more obvious that the Coal we happily possess in excellent quality and abundance is the Mainspring of Modern Material Civilization. As Fuel … it is the source at once of mechanical motion and of chemical change. Accordingly it is the chief agent in almost every improvement or discovery in the arts which the present age brings forth."[10] For Arnold, culture was the source of greatness, but for Jevons, coal was the source of culture. In sharp contrast to Arnold's discussion of "the greatness of England," Jevons's volume suggests that coal – rapidly diminishing coal – is the "chief agent" of British ascendancy.

The economic and social dimensions of extraction-based life developed over a long period, but the 1860s were a crucial decade for the fomenting fears of resource exhaustion that accompanied this transition. Jevons estimated in the first edition of *The Coal Question*, published in 1865, that in the next 100 years England would consume 98,281,000,000 tons of coal, exceeding the 83,000,000,000 tons thought to be available for mining.[11] In his preface to the second edition, published a year later in 1866, Jevons reiterated that "renewed reflection has convinced me that my main position is only too strong and true. It is simply that we cannot long progress as we are now doing."[12] While his projections ultimately proved to be misguided, in their own period they wrought consternation in many sectors of public discussion. In 1866, for example, in the aftermath of Jevons's book, Parliament "ordered an inquiry by means of a Royal Commission" to take stock of coal resources and the threat of exhaustion.[13] This was not the first time Parliament had taken up the subject, but the flurry of activity around the question of exhaustion in the 1860s suggests how pivotal this decade was in the rise of a culture of extraction-based life. Many other developments in this period, technological as well as social, contributed to this shift: 1867, for example, saw the introduction of the Siemens open-hearth process, a key development in the rise of steel (an iron alloy) above iron, and the 1860s was also an important period for labor organization in the mining industry with the Durham Miners' Association, for example, established in 1869.[14] Across the domestic front, England's growing reliance on extractive industry was becoming increasingly apparent just as the finitude of its stock of extractible material was simultaneously coming into view.

Fears of domestic coal exhaustion in England were not unconnected to the surge in extraterritorial extraction projects in which Britain engaged during this period, but the shift toward overseas resources and materials brought its own uncertainties. Prior to writing *The Coal Question*, Jevons was actually a participant in the Australian gold rushes, having taken up a position as assayer at the Sydney Branch of the Royal Mint in 1854, but as Craufurd D. Goodwin argues, "on the controversial question of the wider 'social effects' of gold, Jevons was ambivalent."[15] Despite the reward of wealth that goldmining provided to some, not to mention goldmining's creation of "new colonies, spreading the English people and language," which Jevons also saw as a benefit, he still concluded that "gold-digging has ever seemed to me almost a dead loss of labour as regards the world in general – a wrong against the human race."[16] This reflects a wider debate among economists in the period as to whether the mining of gold, a metal of limited practical use and valuable primarily for exchange, was a net gain or net loss on the ledger of social benefits. Debates about inflation, employment, and population all fed into these conversations; some worried about "the possible loss to Britain from a shift in Australian production out of wool to gold" or about how traditional occupations like shepherding could compete with the "excitement of the gold fields."[17] This economic concern with the "excitement" of mining suggests a connection between sensation and extraction in *Lady Audley's Secret* and *The Moonstone*.

Lady Audley's Secret

Although European exploitation of subterranean resources in the New World dates back at least to the sixteenth century, the nineteenth century saw the acceleration of such overseas "excitement" in the form of colonial extraction. As Heidi V. Scott notes, in this period, "the mapping and exploitation of the subterranean came to be increasingly systematic, intensive and – in quite a literal sense – in-depth, as a result of the development of new and increasingly effective extractive technologies."[18] When we think about the chronotope of exhaustion, then, we are thinking not only about time but also about space. New, exploitable lands are demanded as recompense for the exhaustion of domestic resources; this is the premise of one of the most significant sensation novels of the 1860s: *Lady Audley's Secret*.

The second chapter of the novel, "On Board the Argus," begins with George Talboys on "the good ship Argus, laden with Australian wool, and sailing from Sydney to Liverpool" (54). If the ship's woolen stock introduces the continent of Australia into the novel through an imperial-pastoral lens, the name of the ship – Argus – simultaneously signals that the fleece we are concerned with is a golden one. The novel is set amidst the upheaval of the mid-century Australian gold rushes, which were transforming that colony from a pastoral economy to an extractive one. Talboys, who will later be revealed as the first husband (and the only legal husband) of Lady Audley, explains how he originally envisioned the salvation of his finances and his marriage after overhearing two men in England "talk[ing] of the Australian gold-diggings, and the great things that were to be done there." Engaging them in conversation, Talboys learns "that a stalwart young fellow such as [he] was could hardly fail to do well in the diggings." Instantly, he decides to abandon his wife (temporarily, to his mind) to make "a fortune in the new world" so he can return "in a twelvemonth to throw it into her lap." Within three days, he is "at sea, bound for Melbourne … with a digger's tools for my baggage" (60–1). All this happened prior to the action of the novel, and now, on board the Argus at the beginning of the story, he is returning home to England, never suspecting that in the three intervening years, his wife has married someone else. Gold is, then, the inciting incident in a novel that is so very full of incident.

The novel does not depict George Talboys's goldmining directly, but we hear his own narrative account of his success in Australia – a structure that suggests how central narrative and narrativization are to the gold rush phenomena. Just as George overhears two men in England "talk[ing] of the Australian gold-diggings, and the great things that were to be done there," so we hear George telling the story of his own success in the gold fields:

> At last, one dreary, foggy morning, just three months ago, with a drizzling rain wetting me to the skin; up to my neck in clay and mire; half-starved; enfeebled by fever … a monster nugget turned up under my spade, and I came upon a gold deposit of some magnitude. A fortnight afterwards I was the richest man in all the little colony about me. I travelled post-haste to Sydney, realized my gold findings which were upwards of £20,000, and a fortnight afterwards took my passage for England. (62)

The dizzying speed with which everything changes for George – from enfeebled to enriched in a matter of days – suggests the extreme temporal dissonance of extractivism and its divergence from conventional ideas of progress as gradual and accumulative. This is but one example of how the Australian gold rushes challenged orthodox conceptions of labor, wealth, and national progress and played a significant role in shifting British culture and economy toward a more spectacular, sensational basis in extractivism.

The Australian gold rushes began, as Philip Steer has described, "unobtrusively" on February 12, 1851, when Edward Hargraves, a veteran of the California Gold Rush, "discovered five specks of gold in Lewis Ponds Creek, South Wales."[19] From this minuscule discovery came massive movements of people and wealth across the globe: "Between 1852 and 1861, the colony of Victoria alone received almost 300,000 emigrants from Britain" and "during that time, more than 28,500,000 ounces of gold were extracted from the continent as a whole."[20] This flow of gold launched a flood of print as well as a flood of emigration, as Goodwin explains: "Newspapers and other periodicals were full of comment on the riches pouring forth; special government publications were issued; and emigrants' guides with varying degrees of fidelity advised prospective settlers and gold seekers about what they would find in the new El Dorado."[21] It was on the basis of this history, Steer writes, that Australian gold was made "available as a sensational trope" for popular novels like Charles Reade's *It Is Never Too Late to Mend* (1856) and Braddon's *Lady Audley's Secret*, both of which feature an "Australian subplot" involving the discovery of a large gold nugget (81).[22] An immense amount of gold was found in Australia during the gold rushes, and the new sensation genre that would subsequently emerge could represent such sensational discoveries.

The seeming haphazardness of mineral resource extraction, the luck that was required to strike gold on the colonial frontier, would seem to correspond with the sensation novel's generic investment in fate and providence above choice and reason. Perhaps this is the central epistemological link between sensation fiction and extractivism: this commitment to fortune, in all senses of the word – chance, fate, and luck, as well as wealth and windfall. In *Lady Audley's Secret*, for example, Robert Audley continually ascribes all of his actions throughout the novel to the workings of destiny rather than agency. When Clara Talboys asks him if he will help her solve the mystery of her brother George's apparent death, Robert replies, "it is my destiny to do so" (223). When he and Clara later run into each other at Audley's village church, the unlikely meeting confirms Robert's "consciousness of his own helplessness," his sense that "a hand that is stronger than my own" is in control of his life's course (274). Lady Audley, too, believes that she is fated to suffer from the same madness that afflicted her mother: "I think some people are born to be unlucky," she says to Mrs. Dawson in the novel's opening chapter (50).

The most sensational event in the novel, the event that Robert labors to uncover for much of the story, is Lady Audley's attempted murder of George, and this event, too, is described in the terms and haphazard logic of extractivism. Lady Audley's own agency is diminished in the scene, to begin with: she does not push George into the well but rather draws the iron spindle from the windlass on which he is leaning. Windlasses are commonly used in mineshafts, as in wells, to hoist material from below, and after George's disappearance, Robert looks back on "that September afternoon upon which I … lost him as suddenly and unaccountably as if a trap-door had opened in the solid earth, and let him through to the Antipodes" (180). Narrative suspense leads readers to the false conclusion that George died in this mine-like well, but at the end of the book, George himself describes how he survived "the moment in which I sank into the black pit." Here again, echoes between his fall in the well and his Australian mining experience appear: "I roused myself by an effort, for I felt that the atmosphere I breathed was deadly. I had my Australian experiences to help me in my peril" (443).

As such quotations suggest, George's fall into the well echoes the horrible underground accidents that attended extraction-based life throughout the nineteenth century. On January 16, 1862, for example, in the same month that *Lady Audley's Secret* began its serialization in *Sixpenny Magazine*, the Hartley Colliery Disaster claimed the lives of 204 men and boys when "the beam of the pumping engine which was poised over the pit-head, and weighed 42 tons, suddenly snapped in two, half of it crashing down the pit shaft whereby the miners below were entombed."[23] Three miners who were in the shaft's cage at the time were saved; all others died. The event shook the national imagination. During the attempted rescue that followed the accident, thousands of people from neighboring mining communities gathered at the pit.[24] When rescuers finally cleared enough debris to gain access to the pit, all the miners below were found dead, and at this news, "a thrilling sensation seemed to take possession of the people at the announcement of the fate of so many of their fellow-creatures."[25]

Lady Audley's Secret alignments with extractivism go beyond its Australian gold subplot, its embedded structure of fate and luck, and its depiction of George's fall into the well, extending into its depiction of the daily texture of extraction-based life. While the narrator is nostalgic, for example, for the "good, old-fashioned inn[s]" that "have faded from this earth" since the days of the stagecoach (145), the action of the novel is strongly dependent on the rise of steam-powered transportation, fueled by coal rather than horses. Trains appear frequently throughout the narrative – express trains, mail trains, luggage trains. Characters are always wanting trains and sometimes missing them. When George initially goes missing, Robert decides, on the strength of a clue, to go to Liverpool to inquire after him: "he told the cabman to drive to the Euston Station, and in twenty minutes he was on the platform, making inquiries about the trains." Alas, "the Liverpool express had started half an hour before he reached the station, and he had to wait an hour and a quarter for a slow train to take him to his destination" (131). The minuteness of detail here is typical of the novel's account of life by rail, where a character like Robert is continually traveling across the country, subject to the precision of the train schedule – the temporal antithesis of the "stupid" clock in Audley village with only an hand hand.[26]

One of the railway's key narrative roles in the text is to whisk Lady Audley away from Audley Court immediately after the revelation of her bigamy and duplicity. Here, we see that the bounds of coal-fired transportation seem to stop at the edge of England, cementing Britain's status in the novel as a distinctively extraction-based imperial society, unlike Belgium where Lady Audley ends up: "Robert had consulted a volume of Bradshaw, and had discovered that Villebrumeuse lay out of the track of all railway traffic, and was only approachable by diligence from Brussels." Transport is more expeditious in the first part of their journey, in Britain: "the mail for Dover left London Bridge at nine o'clock, and could be easily caught by Robert and his charge, as the seven o'clock up-train from Audley reached Shoreditch at a quarter past eight" (388). The seemingly unnecessary logistical detail here highlights the depth and breadth of Britain's coal-based transportation network, in contrast to the Continent. When Robert and Lady Audley arrive in Villebrumeuse, they find a "remote Belgian city," a "forgotten, old world place." There are "not many travellers" and even the stagecoach is "supported by the force of tradition rather than by any great profit attaching to it as a speculation" (389–90).

Railways were, as this last quotation suggests, a major field for speculation in this period, and the development of rail infrastructure was often closely tied to extractive industry. This was true in Britain earlier in the century too: Stockton and Darlington Railway, the world's first steam railway, was opened in 1825 in northeast England and was built to move coal.[27] By the 1860s, three decades later, overseas rail speculation had become rampant. We are only beginning to understand how this particular dimension of extraction-based life – the nineteenth-century expansion of rail – connected to and depended on earlier forms of racial capitalism and colonial dispossession, not only in colonial spaces around the world but even in Britain itself. As Peter Newell writes, "The circuits of finance capital by which profits from slavery, plantations and colonial dispossession were first acquired and then recirculated … are ripe for analysis regarding the ways in which they were invested in the industrial revolution and a series of major energy infrastructures such as railways."[28] The tracks of the railway cut deep.

The importance of trains and steam-powered transport to *Lady Audley's Secret*'s novelistic imaginary extends beyond its conception of space and mobility, into the realm of character itself. Lady Audley's psychological state, for example, is compared to a narrow groove or track, with limited reach: "for once in a way, her thoughts ran out of the narrow groove of her own terrors and her own troubles" (321). Miss Tonks, assistant to the schoolmistress Mrs. Vincent, is similarly described as "for ever working backwards and forwards in her narrow groove, like some self-feeding machine for the instruction of young ladies" (254). A "self-feeding machine" represents an idea of a closed system, which neither requires fuel nor emits waste; the metaphor relies on the symbolic prominence of the steam engine in the industrial era, showing the extent to which even characterization is extractivist in this novel. Mrs. Barkamb, the landlady in Wildernsea, Yorkshire, whom Robert visits in the course of his investigations, is likewise described as having a "mind [that] ran in one narrow groove" (266).

The novel's persistent comparison of women characters, especially working women characters, to trains and railways is a means of instrumentalizing their psychologies, turning them into simple mechanisms determined by their tracks and conditions, but it is also a means of understanding them as energetic units capable of work. Historian of energy Cara New Daggett has used the term *energopolitics* to describe the urge "to put all energy on Earth to work," to avoid waste, and to get the maximum output from every energetic unit.[29] The debate over women's labor in the Victorian period could be read energopolitically, as a debate over the harnessing of women's nonreproductive labor. The Industrial Revolution and its accompanying logics of work and energy transformed ideas of personhood such that even the beautiful, frivolous, apparently useless Lady Audley is conceptualized as a unit of energy. She was, one notes, a governess in the home of the Dawsons at the outset of the novel, and the fictional governess has long served as a site on which the debate about women's work can be staged or projected. Energy was, as Daggett notes, profoundly gendered, raced, and classed in this period, and while white British women characters such as Audley, Tonks, and Barkamb are depicted as energy machines, the structure of *Lady Audley's Secret*, with the central role of Australia, suggests that Britain is now running on energy inputs – human labor and fossil energy – that exceed its own resources.

The Moonstone

As with *Lady Audley's Secret*, a precious, extracted commodity from the colonies is at the heart of Wilkie Collins's 1868 novel *The Moonstone*, and, as in Braddon's novel, this mineral commodity provides an entry point into the story. While George Talboys at the beginning of *Lady Audley's Secret* is on his way home from the Australian goldfields, *The Moonstone* opens with a historical account, in the form of a family document, of a sacred Indian diamond and how it came to be taken from India and possessed by the Herncastle family in England. The story starts in the eleventh century, long before British imperial engagements in India, when three Brahmins preserve a figure of the moon-god from the "Mohammedan conqueror, Mahmoud of Ghizni."[30] Thereafter, Vishnu appears to the three Brahmins in a dream and commands that the Moonstone, a large yellow diamond in the forehead of the moon-god figure, "should be watched … by three priests in turn, night and day, to the end of the generations of men." The dream introduces into the novel the familiar trope of the cursed treasure, a trope that frequently suggests the hidden dangers of extracted wealth, for Vishnu predicts "certain disaster to the presumptuous mortal" who would remove the gemstone from its rightful place "and to all of his house and name who received it after him" (2). Notable here is the generational language as well as the framing of the diamond's timescales in terms of the impact of its curse and the length of its period of protection "to the end of the generations of men." The Moonstone serves, in other words, to situate the novel's plot within a mineral timescale that far exceeds the lifetime of its main protagonists.

Exactly who the novel's chief protagonist is would be difficult to say, for this is an ensemble novel with multiple players and multiple narrators who take turns telling the story – a structure that mirrors its narrative interest in scopes and scales that exceed individual human lives. Genial butler Gabriel Betteredge is one of the book's key narrators, and he introduces us to the story of Rachel Verinder, who receives the cursed diamond as a birthday present from her evil-intending uncle. The gem carries into Rachel's home a feeling of vast otherworldliness: as Betteredge explains, the diamond "seemed unfathomable as the heavens themselves. We set it in the sun, and then shut the light out of the room, and it shone awfully out of the depths of its own brightness, with a moony gleam, in the dark." The diamond seems lit from within, with an uncanny power, and at this juncture, the only person at Rachel's birthday party who identifies the diamond in purely material terms is the man who will later thieve it, Godfrey Ablewhite. While "everybody wondered at the prodigious size and beauty of the Diamond" (64), Ablewhite alone calls it "mere carbon" (62).

If the diamond sparks much admiration for its profound depth, scale, and beauty, it also generates much speculation about how one might get rid of it – a constant reminder of its cursed status, which makes it a burden rather than a boon. Franklin Blake, who will ultimately be tasked with pulling together the Moonstone's narrative from many different component parts, fantasizes with Betteredge about destroying the diamond by throwing it in the quicksand at the Shivering Sands: "I was thinking, sir" Betteredge tells Blake, "that I should like to shy the Diamond into the quicksand." Blake replies, "If you have got the value of the stone in your pocket … in it goes" (40). Here, the Shivering Sands becomes an antiextractive space: a sublime subsurface, an earth that cannot be plumbed. The detective Sergeant Cuff asks Betteredge, in the course of his investigation, "Is anything thrown into that quicksand of yours every thrown up on the surface again?," to which Betteredge replies, "whatever goes into the Shivering Sand is sucked down, and seen no more" (130). Mr. Candy, the town doctor, imagines destroying the diamond another way – by burning it: "We will first heat it, Miss Rachel, … to such and such a degree; then we will expose it to a current of air; and little by little – puff! – we evaporate the Diamond, and spare you a world of anxiety about the safe keeping of a valuable precious stone" (65). Here, Mr. Candy references a series of famous experiments by late-eighteenth-century French chemists who proved that diamonds can be destroyed under intense heat. In 1868, the same year that *The Moonstone* was published, Louis Simonin referenced one of these experiments in his popular book *Mines and Miners*, concluding that it "shows that everything here below, glory and the most beautiful jewels, all end in smoke: *Sic transit gloria mundi*" (498).[31]

Is the diamond mere carbon, at the mercy of Candy's chemical experiments? Or is it a repository of value that can be exchanged, as Blake suggests, for cash money? Or, again, is it a sacred offering to the glory of Vishnu, as the three Indians believe, one that carries supernatural powers and a vitality of its own? In some ways, *The Moonstone* stages the clash between two different cultures of nature: Western scientism, which seeks to commodify nature, versus Eastern animacy, "the belief that humans are not the only ensouled beings," which Ghosh has recently referred to as one of modernity's "most powerful taboos."[32] Or perhaps, the novel stages a clash between Western scientism and a Western projection of what Eastern animacy might look like. Regardless, although *The Moonstone* is a novel told in the idiom of science and value and its plot turns on a revelatory experiment, not every Western contributor to the narrative is wedded to such a disenchanted perspective. Betteredge, who attributes nigh-supernatural powers to his dog-eared copy of *Robinson Crusoe*, feels sure that Rachel's birthday party goes wrong because "the cursed Moonstone had turned us all upside down" (82). Blake expresses much the same sense 100 pages later: "When I came here from London with that horrible Diamond … I don't believe there was a happier household in England than this. Look at the household now! Scattered, disunited – the very air of the place poisoned with mystery and suspicion! … The Moonstone has served the Colonel's vengeance" (181). But while Betteredge and Blake are both willing to attribute evil to the diamond, there is no British character in the novel who speaks for the gem's sacred power. Murthwaite, a "celebrated Indian traveller … who, at risk of his life, had penetrated in disguise where no European had set foot before" (65), appears in the book as a bridge between Indian and English ways of knowing and provides crucial explanations at key points in the story. He is, however, no more invested in the diamond's inviolability than any other Englishman in the novel: "send the Diamond to-morrow … to be cut up at Amsterdam,' he recommends. 'Make half a dozen diamonds of it, instead of one. There is an end of its sacred identity as the Moonstone" (73). Ultimately, the diamond is a commodity for all the characters except the Indians.

Extractible commodities come from the underground, from an unmappable terrain that proved endlessly frustrating in its capriciousness to nineteenth-century mining professionals and amateurs alike. In the symbolic realm, however, diamonds and gold flowed freely through genres like the sensation novel as figures for the extraterritorial, imperial inputs that were now the basis of British prosperity. Critics such as Adrienne Munich and Danielle C. Kinsey have written at length about the links between diamonds and British imperialism in the period after 1850, the year when "a solemn ceremony placed in Queen Victoria's outstretched hands the Koh-i-noor Diamond, tribute from the annexation of the Punjab."[33] Collins set *The Moonstone* in 1848–49, just months before the Koh-i-Noor would arrive in Britain, and put the movements of his own fictional diamond at the center of the plot.[34] By the Victorian period, however, India was not a key site for the mining of diamonds, having been replaced by newer fields for imperial exploitation such as South Africa and Brazil. Of the 581 Indian mines listed in the 1894 *Report of the Inspection of Mines in India,* only one is a diamond mine, whereas 215 coal mines are listed, along with 256 mica mines, 40 stone mines, and 22 gold mines.[35] Diamonds were in no sense a fructifying trade in British India, but *The Moonstone* suggests that they remained a powerful symbol of extractive imperialism in the empire writ large.

Conclusion

My focus in this essay has been the sensation novel because it might be considered the major generic innovation of the 1860s, despite its precursors in the Gothic and other nonrealist forms. The plot device of sudden extractive wealth from the colonies extends beyond sensation fiction, of course: Charles Dickens's *Great Expectations* (1861) is perhaps the best-known example of this device in 1860s fiction beyond the sensation novel. Ashley Dawson and Alok Amatya have argued that "resource extraction and the colonial location of such extractions are rendered invisible in novels written during Britain's Age of Empire," and that "in the nineteenth century, the novel comes to be characterised by a constitutive absence that centers on empire and resource unconscious."[36] I would not describe the role of imperial extraction in Dickens's, Braddon's, or Collins's novel as "invisible" or "absent," however. Overseas extraction is not the central drama of these novels, which take place predominantly (though not entirely) in England, but as I have shown with *Lady Audley's Secret* and *The Moonstone*, the extraction plot is the initiating event that allows the rest of the narrative to proceed. In this sense, the whole of each novel is tied to the initial input of overseas mineral wealth – a good indication of Britain's understanding of its society and economy as now dependent on such colonial resources to guard against exhaustion.

Critics in recent decades have theorized the sensation novel as one of a series of genres that developed in the modern world to speed up our sensoria or to reflect the way our sensoria had already been sped up by the exigencies of modern life.[37] But there is an environmental side to this story that remains underexamined. In *Slow Violence and the Environmentalism of the Poor*, Rob Nixon describes the difficulty of representing attritional environmental crisis "in an age when the media venerate the spectacular."

How, in this context, he asks, "can we convert into image and narrative the disasters that are slow moving and long in the making, disasters that are … of indifferent interest to the sensation-driven technologies of our image-world?"[38] Today, I would suggest, we can understand the sensation-driven technologies of the 1860s, including the sensation novel, as part of the rise of a new media environment produced in the context of a culture of environmental extractivism, exploitation, and devastation.

Notes

1 Names and ages of the victims for these three accidents are listed here: www.dmm.org.uk/colliery/b013.htm. www.dmm.org.uk/names/n1860-01.htm, and www.dmm.org.uk/uknames/u1860-01.htm.

2 The lives lost in British-run or British-funded mines overseas and in the colonies have not been reckoned with such care in the intervening decades, but the numbers must surely be vast.

3 For a more general discussion of the rise of industrial extractivism and what I term extraction-based life, see my book *Extraction Ecologies and the Literature of the Long Exhaustion* (Princeton: Princeton University Press, 2021).

4 On the beginning of the "Mineral Revolution" in 1860s South Africa, see *Reunert's Diamond Mines of South Africa* (London: Sampson Low, 1892) and *Industrial Prospects in the Union of South Africa: A Country of Growing Possibilities* (Pretoria: Government Printing and Stationery Office, 1923).

5 For a different approach to ecology in *Lady Audley's Secret*, see Adrian Tait's new materialist account: "The Manifold Ecologies of *Lady Audley's Secret*," in Dewey W. Hall and Jillmarie Murphy, eds., *New Materialist Interpretations of Women Writers in the Long Nineteenth Century* (Liverpool: Liverpool University Press, 2020): 97–115.

6 Amitav Ghosh, *The Great Derangement: Climate Change and the Unthinkable* (Chicago: University of Chicago Press, 2016): 24.

7 M. M. Bakhtin, *The Dialogic Imagination: Four Essays*, ed. Michael Holquist, trans. Caryl Emerson and Michael Holquist (Austin: University of Texas Press, 1981): 243.

8 Mary Elizabeth Braddon, *Lady Audley's Secret* (Peterborough: Broadview, 2003): 43. All subsequent references to this edition will be cited parenthetically in the text.

9 Matthew Arnold, *Culture and Anarchy and Other Writings* (Cambridge: Cambridge University Press, 1993): 64–65.

10 W. Stanley Jevons, *The Coal Question: An Inquiry Concerning the Progress of the Nation, and the Probable Exhaustion of Our Coal Mines* (London: Macmillan, 1865): vii.

11 Ibid., 214.

12 Jevons, *The Coal Question*, 2nd ed., revised (London: Macmillan, 1866): vi.
13 Louis Simonin, *Mines and Miners; or, Underground Life* (London: William Mackenzie, 1868): 46–47.
14 Miles K. Oglethorpe, "Mines, Quarries, and Mineral Works," in Geoffrey Stell, John Shaw, and Susan Storrier, eds., *Scotland's Buildings* (East Linton, Scotland: Tuckwell, 2003): 556; Sidney Webb, *The Story of the Durham Miners (1662–1921)* (London: Fabian Society, 1921): 61.
15 Craufurd D. Goodwin, "British Economists and Australian Gold," *Journal of Economic History* 30, no. 2 (1970): 411.
16 Jevons, *A Serious Fall in the Value of Gold Ascertained*, qtd. in Goodwin, 411.
17 Goodwin, 418. *The Times* (December 2, 1851): 3, qtd. in Goodwin, 418. See also Philip Steer, *Settler Colonialism in Victorian Literature: Economics and Political Identity in the Networks of Empire* (Cambridge: Cambridge University Press, 2020) and "Gold and Greater Britain: Jevons, Trollope, and Settler Colonialism," *Victorian Studies* 58, no. 3 (2016): 436–63.
18 Heidi V. Scott, "Colonialism, Landscape and the Subterranean," *Geography Compass* 2.6 (2008): 1865.
19 Steer, *Settler Colonialism*, 79.
20 Ibid., 80.
21 Goodwin, "British Economists," 405.
22 Steer does not focus on sensation fiction, but my argument here aligns with his book's aim to explore the effects "that the expanding settler empire had upon Victorian literary forms" and "the spatio-temporal underpinnings of genre" (85).
23 John Elliott McCutcheon, *The Hartley Colliery Disaster, 1862* (Seaham: E. McCutcheon, 1963): 15.
24 "Frightful Colliery Accident," *Sheffield and Rotherham Independent* (January 20, 1862): 4.
25 "The Hartley Colliery Disaster: Discovery of the Bodies," *Leeds Mercury* (January 24, 1862): 3.
26 Though it does not discuss coal or steam power, for an otherwise full account of trains in the novel, see Daniel Martin, "Railway Fatigue and the Coming-of-Age Narrative in *Lady Audley's Secret*," *Victorian Review* 34, no. 1 (2008): 131–53.
27 For more on this, see Jevons, first edition, 90; Miller, *Extraction Ecologies*, 220, n. 14.
28 Peter Newell, "Race and the Politics of Energy Transitions," *Energy Research and Social Science* 71 (2021): 2.
29 Cara New Daggett, *The Birth of Energy: Fossil Fuels, Thermodynamics, and the Politics of Work* (Durham: Duke University Press, 2019): 131.
30 Wilkie Collins, *The Moonstone* (Oxford: Oxford, 1999): 2. Krishna Manavalli argues that Collins's novel "sets Mohammedan 'barbarism' against the romanticized religion of the Hindus." See "Collins, Colonial Crime, and the Brahmin Sublime: The Orientalist Vision of a Hindu-Brahmin India in *The Moonstone*," *Comparative Critical Studies* 4, no. 1 (2007): 75.

31 Simonin credits the experiment to Antoine Lavoisier, but as Henry Guerlac shows, there is a longer story behind the diamond experiment involving several different French chemists. Henry Guerlac, *Lavoisier – The Crucial Year: The Background and Origin of His First Experiments on Combustion in 1772* (Ithaca: Cornell University Press, 1961).

32 Amitav Ghosh, *The Nutmeg's Curse: Parables for a Planet in Crisis* (Chicago: University of Chicago Press, 2021): 86.

33 Adrienne Munich, *Empire of Diamonds: Victorian Gems in Imperial Settings* (Charlottesville: University of Virginia Press, 2020): 6. Danielle C. Kinsey, "Koh-i-Noor: Empire, Diamonds, and the Performance of British Material Culture," *Journal of British Studies* 48 (April 2009): 391–419.

34 As Stefanie Markovits writes, "the geographical movements of the Moonstone dictate the arc of [the novel's] plot." See "Form Things: Looking at Genre through Victorian Diamonds," *Victorian Studies* 52, no. 4 (2010): 606.

35 James Grundy, *Report of the Inspection of Mines in India, for the Year Ending the 31st December 1896* (Calcutta: Office of the Superintendent of Government Printing, India, 1897): 74.

36 Ashley Dawson and Alok Amatya, "Literature in an Age of Extraction: An Introduction," *Modern Fiction Studies* 66, no. 1 (Spring 2020): 9.

37 See, for example, Eve Badowska, "On the Track of Things: Sensation and Modernity in Mary Elizabeth Braddon's *Lady Audley's Secret*," *Victorian Literature and Culture* 37, no. 1 (2009): 157–75.

38 Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge: Harvard University Press, 2011): 3.