“The River Seemed Almost Turned to Blood”: The Tooley Street Fire

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Women in Whistler’s Images of Chelsea and the Thames

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https://britishartstudies-22.netlify.app/women-in-whistlers-images-of-chelsea-and-the-thames/

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BRITISH ART STUDIES
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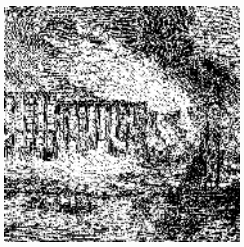
"The River Seemed Almost Turned to Blood": The Tooley Street Fire



Article by **Nancy Rose Marshall**
WORD COUNT:8,119

Abstract
This article considers representations of a fire that broke out at Cotton's Wharf in Tooley Street, London, in 1861 as a case study that reveals a debate about the status of Britain as a global power. Such discussions were fuelled by the three influences of extractive imperial capitalism, a financial system predicated on speculation, and a new investment in the authority of images as records. On multiple levels, images of the Tooley Street fire—a spectacular blaze demolishing the spoils of empire—thematised material transformation in ways that vacillated between reassurance and doubt about the foundational, if shaky, Victorian tenet that nothing was ever lost but rather was in a state of perpetual metamorphosis, infinitely renewable and replaceable. Two new practices of risk-taking—speculation and fire insurance—were likewise predicated on a structure of perpetual substitution, which was also the structure of representation itself. After establishing the various types of illustrations of the Tooley Street fire in terms of their purpose and audience, this article evaluates the principal goods lost in the blaze—cotton and tallow—with regard to their cultural and economic meanings in 1861. It concludes by suggesting that mid-century conceptions of the element of fire resonated with the institutional logic of certain structures of modernity.

Introduction

> *The river seemed almost turned to blood, but so bright and lurid in its deep glow, that it actually appeared like a stream of fire.*[1]

Starting on 22 June 1861, a blaze ignited at Cotton's Wharf in Tooley Street near London Bridge, Southwark. It burned for over two weeks, demolishing three acres and some £2 million or more of goods and property, as well as taking the lives of at least six men, including the captain of the fire brigade, James Braidwood. As a map of the damage suggests, the fire extended along the south bank for a quarter of a mile from St. Olave's Church (now gone) to Battle Bridge-stairs at Beale's Wharf and destroyed a block of buildings three hundred yards wide (fig. 1).[2] Unlike the picturesquely decaying, modest-scale sites of traditional London shipping, portrayed in James McNeill Whistler's *Thames Set* (1859–1861) and treated in other essays in this issue, this location was dominated by modern multi-story brick warehouses. The two spots were, however,

seen in relation to one another in the way they portrayed extreme contrasts in close proximity along the Thames—between old and new building styles, between modes of mercantilism, and between a sail-driven and a steam-driven economy. Not everyone was in favor of the changes signified by the extensive amassing of capital in the new warehouses. This article considers representations of this famous Thames-side fire, which Londoners commemorated for decades, as a case study that reveals a debate playing out about the status of Britain as a global power fueled by the triple influences of extractive imperial capitalism, a financial system predicated on speculation, and a new investment in the authority of the image as record.[3] On multiple levels, these images of a spectacular fire demolishing the spoils of empire thematize material transformation in ways that vacillate between reassurance and doubt about the foundational if shaky Victorian tenet that nothing was ever lost but rather was merely in a state of perpetual metamorphosis, infinitely renewable and replaceable—that is, representable.[4] After first establishing the various types of illustrations of the Tooley Street fire in terms of their purpose and audience, I evaluate the principal goods lost in the blaze (cotton and tallow) with regard to their cultural and economic meanings in 1861. Considering how these issues in turn were informed and constituted by new practices of risk-taking—speculation and fire insurance—and the ways in which the aesthetic category of the sublime deployed in news accounts of the fire worked both to support and to undermine some of the essential principles bolstering the British Empire, I suggest ways in which mid-century conceptions of the element of fire resonated with the institutional logic of certain structures of modernity.

Figure 1

James Thomas Loveday, *Plan of buildings destroyed at Chamberlain's Wharf, Cotton's Wharf and Hay's Wharf in the Cotton's Wharf Fire, Tooley Street* (detail), 1861, lithograph, 60 × 49 cm. Collection of London Metropolitan Archives / London Picture Archive. Digital image courtesy of London Picture Archive (all rights reserved).

Representations of the Tooley Street Fire

The proliferation of popular print reproductions of the Tooley Street fire images suggests that they performed important representational work. The meanings generated by the prints were by no means uniform or consistent, but rather varied greatly between the mainstream and more obscure publishing outlets. An example of the former is the highly successful *Illustrated London*

News's plate entitled "The Great Fire in Southwark: Scene at Cotton's Wharf on Sunday Morning at Two o'Clock", which portrays rectangular, multi-story warehouses ablaze, their crumbling walls filling with molten rubble (fig. 2).[5] Like virtually all the news accounts, the accompanying text in the *Illustrated London News* spoke at length of the massive amount of property destroyed. It noted, first, that the value was estimated at about £2 million, then listed items in detail.[6] The fact that the goods that went up in smoke at this moment constituted a portrait of Empire in the form of its trade stuffs was not lost on commentators; as *Chambers's Edinburgh Journal* observed, "scarce a country under heaven but contributed its share of precious fuel to that wasteful flame".[7] The *Leisure Hour* even listed the countries of origin of many items, such as ginger from Jamaica, and coffee from Trinidad and Ceylon.[8]

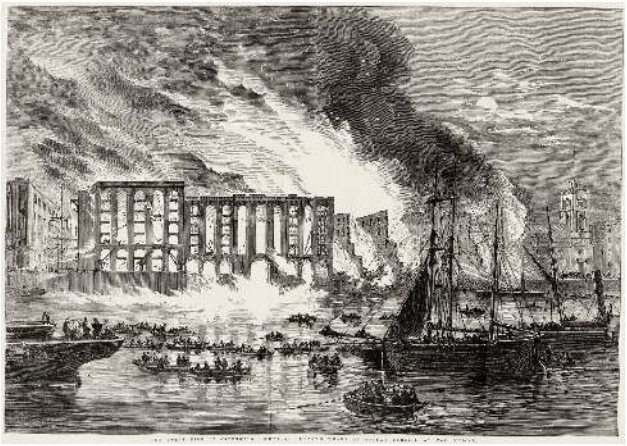


Figure 2

The Great Fire in Southwark: Scene at Cotton's Wharf, *Illustrated London News*, 29 June 1861, 618, 1861, engraving. Collection of the Mary Evans Picture Library. Digital image courtesy of Mary Evans Picture Library (all rights reserved).

Given the reputation of the *Illustrated London News* for trustworthy, firsthand reporting, the newspaper's illustration of the Tooley Street conflagration was influential and copied closely by other printmakers.[9] In contrast to the irregular clouds speckled with sparks rolling off to the left, the horizontal lines of the river and boats create a sense of order in the foreground. Due to the lack of color, the actual extent of the flames is uncertain, although everything rendered in plain white is clearly blazingly hot. In general, the black and white takes on the matter-of-fact quality of the printed page. A small rowboat angles in from the right of center, giving us an entry into the space, but our precise viewpoint is somewhere vague yet safe, floating in front of the scene. The visual rhetoric of the engraving therefore affords the viewer a position that conveys both a sense of witnessing an event and a controlling, distancing frame. Its one-point linear perspective, carefully observed proliferating detail, and elevated view all conform to the ways in which Andrea Korda sees the *Illustrated London News*'s style as working to generate "instrumental realism" by denying the presence of a fabricating hand behind the image: "When an image is understood to hold this natural relationship to the world, it suppresses critical examination of actual process of production—viewers are discouraged from questioning the formal choices that influence the meaning of the image".[10] We do not doubt the scene's verisimilitude or consider that the artist made choices to produce it. Rather, we accept its ideological agenda as part of its

apparent authenticity. Thinking with Korda, we might look to the *News*'s influential representation to underscore mainstream conservative values.
Notably, despite the terrific blaze, there seems to be no immediate threat to human life, with the spectators, most of whom are men whose dress suggests they are predominantly workers, keeping their distance from the fire. On 6 July, when the fire was still burning but under control, the *Illustrated London News* published a narrative plan of the fire, showing with exactitude the boundaries of the damage, the spot where it started, the location of the death of Braidwood, and "here the fire ended", designed in such a way as to read from left to right, its organization correlating with our expectations of narrative (fig. 3). Such an image suggests a crisis that has been thoroughly investigated, comprehended, ordered, and managed.

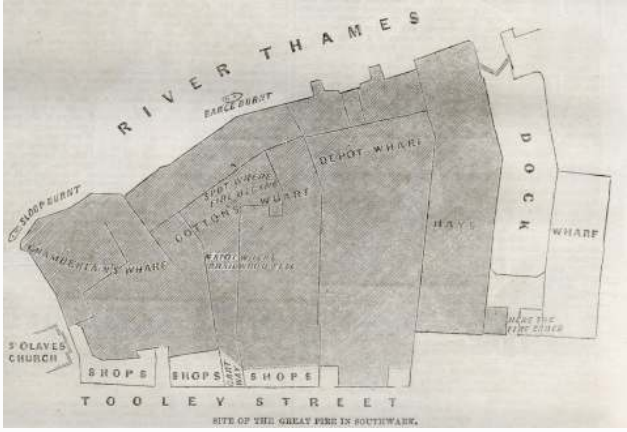


Figure 3

Plan of the Great Fire in Southwark, *Illustrated London News*, 6 July 1861, 19, 1861, engraving. Collection of the Mary Evans Picture Library. Digital image courtesy of Mary Evans Picture Library (all rights reserved).

Other representations of the same moment during the fire, lacking the hegemonic status enjoyed by the *News*, offer contrasting styles and meanings. Unlike the illustrations embedded in a newspaper intended to be held, leafed through, and read, colored prints such as "The Great Fire Near London Bridge on Saturday 22 June 1861" stood on their own (fig. 4). A purchaser would engage with such a print one-on-one, for its own sake, storing it in a portfolio or framing it on the wall for the sole purpose of looking at it. As its caption proudly reads, it is "printed in colours by P. Macdonald, 30 Great Sutton Street, Clerkenwell", and that fact immediately strikes the viewer.[11] The surface of the paper is positively alight with bright, saturated patches of yellow, red, and orange. Orange, a warm color, advances, while blue, a cool one, recedes, with Macdonald in a small way echoing famous oil paintings of London fires that drew for their visual effects on this color contrast, notably Joseph Mallord William Turner's *Burning of the Houses of Parliament* of 1835 (Philadelphia Art Museum).[12] Its garish tints and repeated simplified forms, along with its agitated, peculiar representation of fire, mark Macdonald's image out as a different order of representation from the cool reportage of the *Illustrated London News*. To the left of the print, a building wall angles into a very weak stab at creating some form of depth, but without any real system of perspective. To the right, London Bridge terminates equally awkwardly. Deficient in the reality effects of the *Illustrated London News*, the work is intended as an appealing souvenir of a current event. Heightening its claims as well as its colors, the caption

states the fire was still burning a month after it began and estimates damages at up to £4 million.[13]

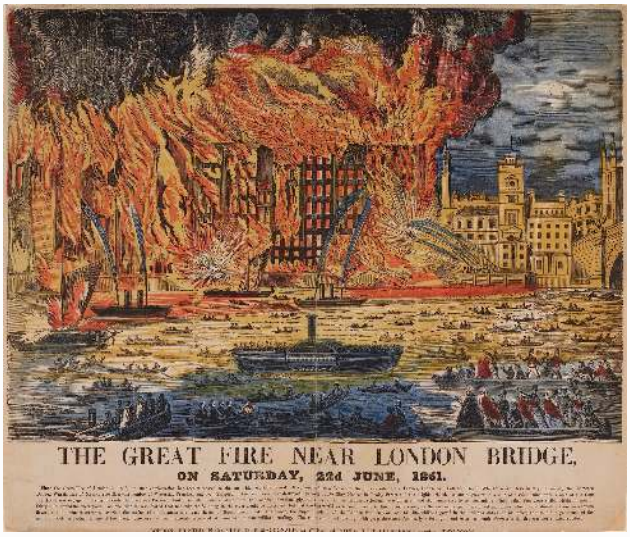


Figure 4

P. Macdonald, *The Great Fire Near London Bridge on Saturday, 22 June 1861*, 1861, woodcut, 51 × 43 cm. Collection of the London Metropolitan Archives / London Picture Archive. Digital image courtesy of London Picture Archive (all rights reserved).

Also unlike the *Illustrated London News* image, Macdonald's view packs in the bodies. In a portrayal that echoes contemporary descriptions of dangerously overcrowded "skiffs and wherries" that "made a dense and far-stretching mass", human forms and almost fifty boats scatter across a river of orange and yellow that inexplicably turns to blue and green in a foreground patch too large to be cast by the steamboat floating there.[14] The steamboat, featured in most other representations of the scene (although cropped to the right of the *Illustrated London News* version), is crammed with viewers, as we also see in S. Marks & Sons' "A View of the Great Fire in Southwark: From London Bridge!", which similarly emphasizes in cookie-cutter replication the presence of bourgeois spectators (fig. 5). Another cheap colored print, Read & Co.'s "The Great Fire Near London Bridge Saturday June 22 1861", takes advantage of its medium, the new chromolithograph, to produce more naturalistic, detailed descriptions of the people, emphasizing even more distinctly the range of British subjects who came out to observe this scene (figs. 6 and 7).[15] While the *Illustrated London News* limits its portrayal of the crowds both in size and in class identity, preferring perhaps to suggest that most of the individuals on the scene had some actual role to play in the fire management, the colored prints portray people who are here purely to watch.

Figure 5

S. Marks & Son, *View of the Great Fire in Southwark: From London Bridge*, 1861, woodcut, 46 × 38 cm. Collection of the Look and Learn History Picture Archive / Peter Jackson Collection. Digital image courtesy of Look and Learn History Picture Archive / Peter Jackson Collection (all rights reserved).

Figure 6

Read & Co., *The Great Fire Near London Bridge Saturday, June 22nd 1861*, 1861, lithograph, 41.1 × 34.8 cm. Digital image courtesy of Alamy Stock Photo (all rights reserved).

Figure 7

Read & Co., *The Great Fire Near London Bridge Saturday, June 22nd 1861* (detail), 1861, lithograph, 41.1 × 34.8 cm. Digital image courtesy of Alamy Stock Photo (all rights reserved).

The images that emphasized Londoners looking at the fire—and at each other—showed the people to themselves in a format that the vast majority of them would be able to take home with them. Originating in the late 1830s, and marketed as an excitingly new and cheap color process, chromolithography developed various ways to bring colorful images to the masses.[16] Read & Co.'s "The Great Fire" cost, it notes, twopence. Inexpensive both to make and to purchase, this form allowed for mass distribution. Macdonald's and S. Marks & Sons' prints are other types of equally cheap colored printing.[17]

Such engravings and lithographs took individual experiences and translated them into representations that all could share, in essence helping to create a public sphere. The Tooley Street fire was a "current event" that promised to enter into the historical record; the portability of prints, alongside the fact that they could be individually possessed, put more Britons in charge of producing and preserving the national narrative. Newly accessible pieces of contemporary history in keepsake form preserved a collective story by distilling the ephemeral news of the day, and many such urban disasters throughout the century, like the famous fire that demolished the Houses of Parliament in 1835, generated similar prints. For some publishers, there may have been an ethical as well as a financial incentive in conveying history in this format into people's homes. While it is challenging to retrieve a full picture of the social position or personal politics of the printers issuing these images, P. Macdonald is listed as the secretary of London's first ragged school, an indication of his intentions to assist the poor and his likely engagement at least to some degree in issues related to social reform.[18] Certainly his print, cheaply produced and sold, was meant for a mass audience.

Notably, both Macdonald and Read & Co. were more direct about the danger to human life than the *Illustrated London News*, as both included markers of the trauma of the event itself. The warehouse walls to the right in the Read plate are in the very act of crashing, suggesting perhaps the moment that Braidwood died under a portion of collapsing building (fig. 8). Moreover, in the Macdonald print, a patch of orange to the right, surrounded by yellow and black toothy jagged lines, helps us understand that the water itself is burning. Just underneath a starburst explosion

from the warehouse, a boat is visibly on fire, its occupants waving desperately. On the left occurs another alarming incident of a man jumping or falling into the water from a boat with a burning sail (fig. 9). People in nearby craft raise their arms in response, creating a community identified with an empathetic and suspenseful fear for the safety of its members. Macdonald is recording actual events of the first evening, in which a sloop (variously also termed a "schooner") and a barge caught fire.[19] Read's version also includes two burning boats, the barge to the left by the warehouses and the abandoned sloop in front of the disintegrating wall, its lifeboat half submerged. These passages of a terrifyingly close proximity between human beings and a deadly element acknowledge not only the episodes themselves but also the tragic loss of life among those desperate enough to attempt to retrieve property freed from the warehouses by the fire.

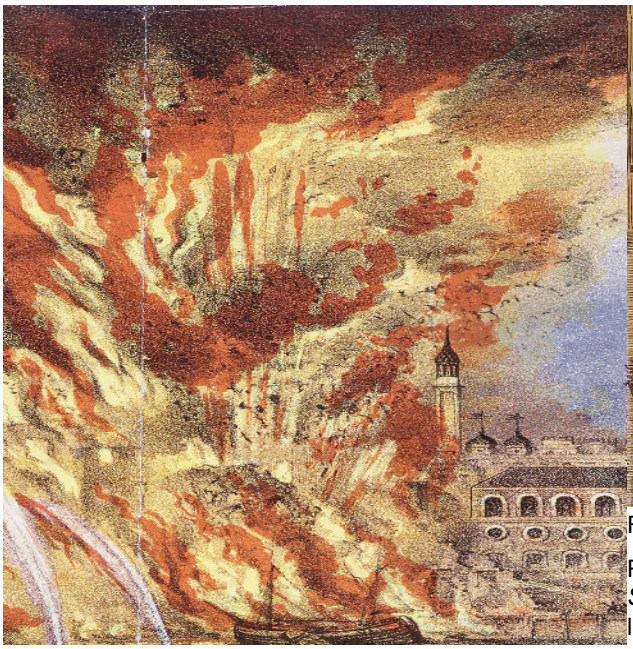


Figure 8

Read & Co., *The Great Fire Near London Bridge Saturday, June 22nd 1861* (detail), 1861, lithograph, 41.1 × 34.8 cm. Digital image courtesy of Alamy Stock Photo (all rights reserved).

Figure 9

Read & Co., *The Great Fire Near London Bridge Saturday, June 22nd 1861* (detail), 1861, lithograph, 41.1 × 34.8 cm. Digital image courtesy of Alamy Stock Photo (all rights reserved).

Reynolds's Miscellany went much farther than Macdonald and Read & Co. in its coverage of the deadly toll of the fire. A radical weekly that encouraged reform, founded by Chartist G.W.M. Reynolds, this paper included in its coverage an illustration with a barge alight and stalled against a pile of burning tallow, in front of which several figures, appearing ragged or bare-legged, gesticulate or leap from their small craft; to the right, two bearded men on a boat tow another wherry out of danger (fig. 10).[20] Spiky flames run from the lower left to the upper right of the image, indicating the extent of the unnatural condition of the burning river. This image conforms with Charlotte Boger's recollections that "boats with adventurous lads danced like dark specks on the water, to be suddenly enveloped by dark rings of flame, and the boys, in peril of their lives from the rival elements, were rescued".[21]

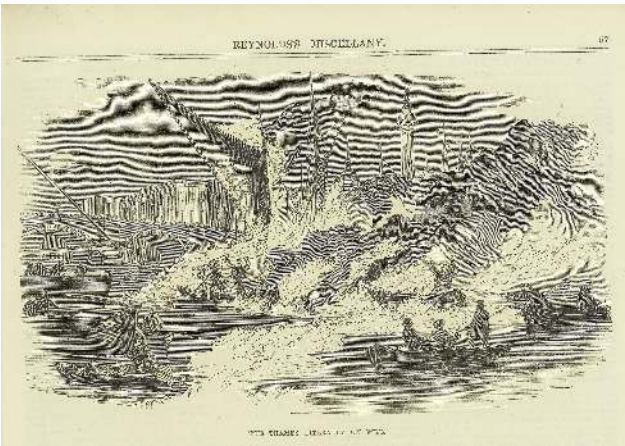


Figure 10

Read & Co., *The Thames Literally on Fire, The Dreadful Fire in London*, *Reynolds's Miscellany* 27, no. 684 (20 July 1861): 57, 1861, engraving. Collection of the National Library of Scotland. Digital image courtesy of National Library of Scotland (all rights reserved).

In her emphasis on adventure, however, Boger overlooks the major reason people risked entering the maelstrom of water and fire. In the Read & Co. print, one figure fishes something out of the river, a reminder that "many people, … heedless of the terrific grandeur of the scene around them, were intent on filling their boats with the vast quantities of tallow and cotton floating the stream" (fig. 11).[22] Unable to appreciate the sublimity of the spectacle, the poor saw only an opportunity to compete in a world of international trade from which they were usually excluded. Images that include both those in danger and those seeking to scavenge goods are therefore attentive to the variations in class response to this event. Indeed, the caption to Read & Co.'s lithograph, which portrays both burning boats and the man retrieving material from the river, notably observes that "many others" besides Braidwood and the merchant Peter Scott died. At least five nameless poor and working-class individuals were lost to history, while the gentlemen were not only celebrated but also given heroic burials.[23] One writer opined that it was "probable that the number of these unfortunate persons who thus fell victims to their rashness or cupidity, will never be ascertained", but imagined that number to be "very many".[24] For the popular printmakers, it was important to portray the bourgeoisie as witnesses both to the Tooley Street tragedy and to its working-class victims.

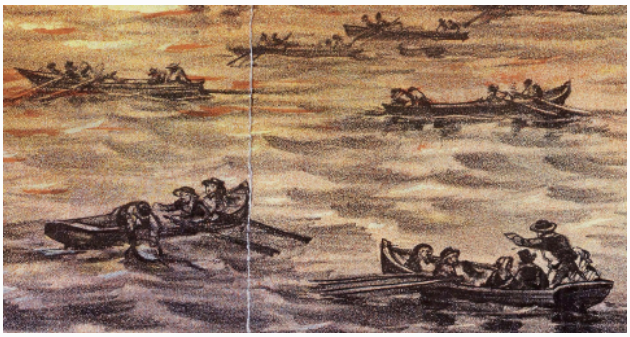


Figure 11

Read & Co., *The Great Fire Near London Bridge Saturday, June 22nd 1861* (detail), 1861, lithograph, 41.1 × 34.8 cm. Digital image courtesy of Alamy Stock Photo (all rights reserved).

The Goods

However, the merchants, investors, and businessmen who ran the trade at Cotton's wharf and the surrounding warehouses also suffered losses in the fire, tellingly referred to by James Pyne, the editor of *Chambers's Edinburgh Journal*, as the "funereal pyre of the wealth of the world".[25] Focusing on precisely what the man pulls from the river in the Read & Co. detail, as well as what is melting, burning, and floating in representations of the Tooley Street fire, helps us see the matter itself involved in this incident. The caption for the Read & Co. print emphasizes the "colossal warehouses" "filled with every variety of goods, among which were many of a highly combustible nature, which, igniting, exploded with awful crashes, lighting up the vast metropolis and country round for thirty miles".[26] These goods took on an agency of their own, at times, like the fire itself, seeming to defy human management entirely.

The published cause of the fire was the spontaneous combustion of 1,000 tons of hemp, a product imported largely from Russia.[27] Others identified the source as the 1,009 tons of jute imported from Bengal.[28] "Spontaneous combustion", as a final cause of a fire, tended to generate suspicion, as I will discuss in due course, but for now, taken as truth, it is a startling instance of a thing—hemp or jute—rebelling against its masters. Bill Brown's "thing theory" animates the world outside the human by noting that in some circumstances, the thingness of objects—their existence apart from our definitions or control, as when "you get bopped on the head by a falling nut"—becomes inescapable; as Brown reflects, "we begin to confront the thingness of objects when they stop working for us … when their flow within the circuits of production and distribution, consumption and exhibition, has been arrested, however momentarily".[29] In the context of the Tooley Street fire, hemp, jute, and many other goods certainly did just this. When considered in light of their flammability, these objects acquired agential powers, jute being considered especially dangerous. In an article on "another jute fire" in 1864, a reporter described this material's performance in a fire: "it is up and doing in a second; and before a messenger can be despatched for the engines or an alarm bell rung, is master of the position".[30] The goods at Tooley Street feature as star players in the accounts of the blaze, their agency as dynamic as that of the fire itself. Hemp autonomously begins to burn, setting off saltpeter and melting tallow, which in turn goes on a murderous and destructive rampage. Such resistance to human

definitions and purposes continues as the things defy their original identity as private property and set off down the river, redistributing wealth in the process.

One of the liberated goods was cotton, frequently mentioned as an item in storage in the warehouses. A highly topical material in the wake of the outbreak of the American Civil War in May 1861, cotton was an ethically charged product that would have been associated with both the United States and India at the time. The *Leisure Hour* specifically identified the cotton in the fire as American; for many Britons, cotton was of course synonymous with the Confederacy, although opinions on the American conflict differed considerably.[31] In the same newspapers reporting the blaze were accounts of the English ships detained in the blockade of Southern trade, reminding readers that Britain depended for its cotton on the Southern United States.[32] Indeed the cotton trade in Great Britain, focused on the manufacture of cotton thread and cloth, was ultimately devastated by the loss of the American supply. As the country's largest industry, in 1860 cotton employed up to a quarter of the British population, with estimates ranging from three million to six million.[33] Britain was therefore ambivalent about the outcome of the war, with some even actively looking forward to trading with the newly formed Confederate Nation.[34]

In a melodramatic vein, the abolitionist *Illustrated London News* attempted to persuade its readership in June 1861 that the imminent catastrophe of losing the American cotton source was similar to the cholera epidemic of 1831 in terms of the country's lack of preparation for devastation despite the obvious threat.[35] The article deployed sensationalizing language to make its point about willful ignoring of the peril: "People who live in the neighbourhood of a volcano are proverbially insensible to the perils of an eruption".[36] It is not too great a stretch to see the cotton blazing away in the Tooley Street fire as a representation of erupting national disaster. Moreover, as the *Illustrated London News* forcefully reminded its readers, American cotton was bloodstained; viewed in this light, its burning might have represented a vengeful justice served on those who hoped to profit from the labor of the enslaved.[37] Most news reports of the fire merely listed the cotton in terms of the amounts stored and destroyed, but the *Illustrated London News* was careful to identify it specifically as Indian (17,000 bales of Surat cotton, and 6,000 of Tinnevelly).[38] This detail reflected and reinforced the *News*'s position on the paramount importance of ending British dependence on American cotton for imperatives both financial and moral. The urgency of sourcing cotton from other locations spurred colonial cultivation at this time.[39]

Joining cotton in the conflagration were 8,800 casks of tallow (worth £200,000), which melted, flowed into the Thames, and continued to burn.[40] A large surface area of the Thames was alight for hours; spraying the burning tallow with water only heightened the intensity of the flames (fig. 12). The unnatural green, orange, and yellow water in Macdonald's print points to the perverse conditions in which elements behave contrary to their nature: *pace* Adele and her claim to "set fire to the rain", this state of affairs should be an impossibility. Indeed the phrase "setting the Thames on fire" meant precisely this and was cited more than once in connection with the Tooley Street blaze.[41]

Figure 12

Chris Murphy, *Burning Tallow Hitting Water*, 2021, video. Chris Murphy (all rights reserved).

Like the hemp and jute, tallow here rules its masters; outside natural law, it becomes another form altogether, a wild force of nature: it was described variously by witnesses as a "torrent", a "cataract", "cascades", or "rivers".[42] In liquifying, it flowed beyond ownership, out of the bounded forms and spaces in which it had been contained. Tallow was valuable, primarily used to make candles and soap but also to lubricate various types of machinery, including the sort of steam press that would have printed the images representing the dramatic display it helped to produce; prices for boatfuls ran to as much as £30, which for some represented "boundless wealth, out of boundless ruin", as Pyne characterized the situation.[43] The *Saturday Review* similarly remarked on "the diffusion of wealth caused by this vast sacrifice of property": "In many a humble home the tradition of this night's golden harvest will be long preserved. It saw the destruction of some large fortunes and the accumulation of many small ones".[44] The scavenger economy appears to have temporarily triumphed here, at least in many accounts. Like the tallow itself, the working classes portrayed in the prints are therefore interfering with the economic system represented by the Tooley Street warehouses.

In the center of the prints, then, is the metamorphosis of matter, in the case of tallow from a solid to a liquid and then a gas.[45] Spectators of the fire itself would remember its terrible smell, which "polluted the atmosphere of London for upwards of a fortnight".[46] Pyne observed the physical effects of the onslaught of odor: "We felt sick and ill; for all night long … we had been half-suffocated by tallow fumes, which … I hold to be the very nastiest stench that can be inhaled without stupefaction".[47] The tallow also caused a visible mess, as the streets and alleys in the area were slippery and full of a "most offensive smell" caused by the substance oozing up to ankle deep.[48] Nearby sewers collected the matter and also became a potential explosive threat.[49] The disgusting odor was a haunting reminder that the "pyre" was all too real, given the innumerable animal bodies that were burning here. Formed from rendered beef or sheep fat, tallow lit and lubricated the industrial revolution, at the cost of a number of animal lives that was both countless and exponentially growing.[50] The vile stench would also have been a clear

violation of Nuisances Removal Acts designed to control the environmental impacts of the "offensive trades" (such as slaughterhouses, tallow makers, and tanners) in London. Clearly, catastrophic fires such as Tooley Street represented dramatic resistance to the various environmental initiatives undertaken in London by the 1860s, particularly regarding the Thames and sanitary reform. From the 1840s, in the wake of Edwin Chadwick's reports, various boards were established to regulate organic pollution affecting the Thames.[51] Although less remarked upon, vast amounts of animal waste from numerous small businesses joined with the infamous sewage to create the noxious conditions of the Thames culminating in the Great Stink of 1857.[52] As a fouling substance, tallow would have contaminated the river and left a lasting effect on its ecosystem.[53] Moreover, the extreme heat absorbed by the river, along with the lack of oxygen due to the surface covering, would have caused flora and fauna die-off, at least in the short term. In terms of air pollution, the Alkali Acts of the 1860s sought to curb industrial air pollution, while the Smoke Nuisance Abatement Act of 1853 focused on "black smoke".[54] The prints of Tooley Street make clear the feebleness of such efforts at mitigating deleterious human influence on the environment in the face of a colossal industrial disaster such as a warehouse fire, especially in their emphasis on the supposedly banned "black smoke" generated both by the steam launches in the prints and by the fire itself.

Countering the obvious fears set in play by such cataclysmic damage to the water and air was a persistent belief that rivers were self-cleansing organisms, capable of absorbing and neutralizing any amount of human-produced effluvium; such a view, and its parallel attitude that plants possessed a boundless ability to neutralize smoke and pollution, would have made it possible to relish the sublime sensory assault of the Tooley Street fire without concerns for its environmental consequences.[55] The "numberless mouths, of grass and shrubs, and trees … purify the air", maintained a school textbook, observing that "man … is a great spoiler of the air. How can it be then that the air is as pure, as bright, as clean to-day, as it was a hundred ages ago? A very beautiful arrangement exists to keep it in perfect order".[56] The very element of fire itself was the reassuring evidence of a balanced cycle, noted the *English Mechanic*, in which plants captured and then released energy repeatedly: "everything goes out and returns. … once-imprisoned but now released gases pass into the atmosphere again and thus are fitted for proceeding on a similar round; and so on, forever".[57] Combustion was but a temporary transference of matter into other forms; corruption of air and water always a reversible condition.

The stink might also have signaled that something else was rotten in the heart of the Empire. As it happens, just at this very moment, tallow had become an example of a good whose value had been falsely valued by manipulation of the price by dubious practices of Russian businessmen who stockpiled and then charged exorbitant amounts for it. Three-quarters of the tallow in England came from Russia.[58] By deliberately buying up the product in Britain, the Moscow group "caused tallow to reach a fictitious price in the market so very considerably above its real value as to seriously prejudice its sale".[59]At this point British consumers began to fight back by substituting other oils and developing tallow trade with other countries, but Russia was able to maintain this high price until June 1861, when the market crashed and they took a financial hit somewhere between £300,000 and £500,000.[60]

Tallow therefore represented a trade good that was subject to what Tamara Wagner calls "new motif-structures" created by the "economic uncertainty" and other aspects of the new finance capital system.[61] At mid-century, Victorian Britain experienced volatile economic conditions, speculation being one of the causes of financial crises.[62] As Britain moved away from industrial production and consumption of goods to an economy based on credit and speculation—the

"begetting of money from money", in Anna Kornbluh's phrase—the 1850s became a turning point.[63] In 1861, then, a system in which goods such as tallow had once had "intrinsic worth", making the "fictitious" valuations of a bubble obvious, was disappearing under the new economy in which value was continually fluid, flickering, and inconstant.[64] Tallow was therefore associated with risk for both its intrinsic material qualities (flammable) and its human-defined attributes (fluctuating price). Burning tallow, a profoundly unstable substance producing both a horrific stench and the unnatural behavior of elements, pointed to the idea of financial instability at the heart of capitalism.

Indeed, the volatile economic conditions of the era metaphorically correlate with the uncertainty of safety in new city spaces. Like devastating ruin from fire, financial speculation and ruin were aspects of urban modernity. Wagner cites Peter Brooks's observation that, in the nineteenth century, money came to represent "the fluidity and vaporousness of things in an economy that can swiftly move from boom to bust and recycle".[65] In a world in which nothing is solid or stable, money is merely representation itself, the ultimate example of a thing standing in for something else.

Fire Insurance

Another novel aspect of the contemporary London economy, and one similarly dependent on the power of representation, was fire insurance. All of the prints include firemen and boats, making it clear that the goods in question were insured, as at this time the London fire brigade was made up solely of employees of a number of private fire insurance companies.[66] Such images patently question the efficacy of such a system, as in fact did many Britons at the time.

The repeated emphasis on the monetary value of the losses portrayed in text and images of the Tooley Street fire was, on the one hand, a way of visualizing and measuring it in social terms; on the other, the staggering numbers would have set in play the question of whether that loss was irrevocable or recuperable. As Paul Fyfe trenchantly observes in his book on the changing definitions of risk in the Victorian period, *By Accident or Design*, a large urban fire "blazed away with the spectacle of risk unmanaged".[67] Fyfe perceives the extent to which it was actually in the interests of fire insurance companies to play up the losses and dangers of major fires, such that they often fed the newspapers their reports directly: "Catastrophes could translate into big business for insurance companies and newspapers alike … Fire insurance transformed the very impediments to its operation into its best publicity. With their sensational and sympathetic storylines, fire reports doubled as advertisements for market-ready conceptions of loss and compensation".[68]

In an article after the Tooley Street fire, Charles Dickens's journal *All the Year Round* observed that "the insurance offices, while they pay out rather heavily with one hand, receive something back with the other in the shape of the premiums paid upon policies taken out under the influence of extraordinary fear".[69] As Fyfe found, "big fires might be costly but also frightened new clients into the market".[70] The companies were in need of such boosts, as they tended to operate at a loss, and by 1850 had only managed to cover half the potential properties in Britain.[71] Indeed rates for insuring the warehouses rose after the Tooley Street fire.[72] Not surprisingly, then, the hyping of the dangers inherent in doing business in this area appeared in many guises, such as the *Daily Telegraph*'s lengthy paragraph, reprinted in the *Illustrated London News*, listing historical conflagrations back to the Great Fire of 1666: "it is in the close vicinage of below bridge that the Fire King seems to have his favorite haunt. One might almost fancy that there was a smouldering volcano at either end of London-bridge".[73] Utilizing volcanic imagery both

naturalized the human-created disaster and made it all the more imperative that such a chaotic threat be predicted and mastered. Such repeated emphases on the danger of this site encouraged the sale of more insurance policies to warehouse and other area property owners. In part, then, the representation of the fires played into the hands of the businesses involved in risk management.

Insurance therefore grew hand in hand with private property-owning classes, marketed as a way of mitigating their risk, encouraging development, and securing the social order.[74] Risk mitigation involved an empirical analysis of evidence to determine natural patterns from what might seem chaotic events and fed on vivid eyewitness accounts; this, then, is what we see on display in the prints and reports of the Tooley Street fire. Fyfe insightfully perceives that, like the British financial system in general, fire insurance was bound up in the ways it was represented, depending on writing and image-making to come into being.[75] Representations of risk therefore became bound up in a complex socio-economic system supporting the status quo. In *Victorian Writing About Risk*, however, Elaine Freedgood argues that seemingly insignificant, ephemeral texts—a category into which one can place the Tooley Street fire prints and news accounts—can in fact often do important cultural work in the way they reveal conflicts in the political unconscious.[76] Often such texts direct attention to the very thing they are attempting to master or occlude. In the case of images of risk, Freedgood analyzes how some of these might work "to expose how cultural deployments of risk are used to moralize and naturalize the economic and political institutions of industrial, imperial culture".[77] Images of the Tooley Street fire, then, could be understood in part as a way of encouraging yet more capital towards global imperial trade, because risk was an important "legitimator of profit or fortune".[78] At the same time, however, we might see these works pointing to the man behind the curtain, helping us see the ideological mechanisms clunkily chugging away (fueled, of course, by steam power).

Sublime Spectacle

The visually and verbally spectacular representations of the Tooley Street fire are ambivalent in their encouragement of the ongoing development of capitalist concerns. On the one hand, they play into the definitions of risk as simultaneously painful and pleasurable, identified by Freedgood as a structuring principle in advancing economic expansion.[79] A common rhetorical conceit in the accounts of the fire was to invoke the aesthetic category of the sublime, repeatedly acknowledging the puniness of human efforts in the face of natural fury. In the same way that many of the prints portray tiny, ant-like human figures, newspapers focused on the overwhelming force and scale of the blaze; the *Illustrated History of the Great Fire* solemnly remarked: "we are fond of talking of the great progress we have made in engineering science, and all the other sciences which tend to the comfort and preservation of man; but the present calamity is a terrible lesson of the futility of human efforts".[80] The deployment of the sublime in visual and verbal representations of the Tooley Street fire fits tidily into Freedgood's framework of the painful pleasure accorded to risk in this system.

First codified by Edmund Burke in 1757, the sublime was commonly deployed in representations of an inescapable or terrifyingly immense deadly force, the final cause of which was God.[81] One might distinguish in the sublimely impressive representations of the Tooley Street fire, then, a resignation to the workings of fate and a foregrounding of what Robin Pearson, a historian of fire insurance, has identified as older modes of behavior relating accident to the mysterious workings of the divine. As Fyfe similarly found, religion offered the comforting belief that there was an established plan for all on earth, and that "anything seemingly random would resolve into

patterns given a large enough view, revealing general laws established by God".[82] By the nineteenth century, calamities were increasingly associated with foreign lands seen as disorganized and backward, dominated by superstition and resignation to fate. Yet, Pearson holds, the push for more safety regulations and standards in Britain was countered by the continued existence of the belief that disasters were in the end such a matter of chance as to be unforeseeable.[83] One could read in the massed crowds a fatalistic acceptance of the disaster, a recognition but tolerance of the pain it caused.[84]

On the other hand, the emphasis in representation on the vast numbers of spectators clearly enjoying the visual display without any true concerns for their safety undercuts any notion that the scene was in fact truly terrifying. Rather, its aesthetic pleasures outweighed its horrors. Indeed, numerous accounts described the Tooley Street fire as a grand spectacle, with more or less embarrassment about the fact that Londoners and other Britons traveled to the city for days and weeks to see the fire and its ruins. As many prints suggest, part of the spectacle was therefore the people themselves (fig. 13).

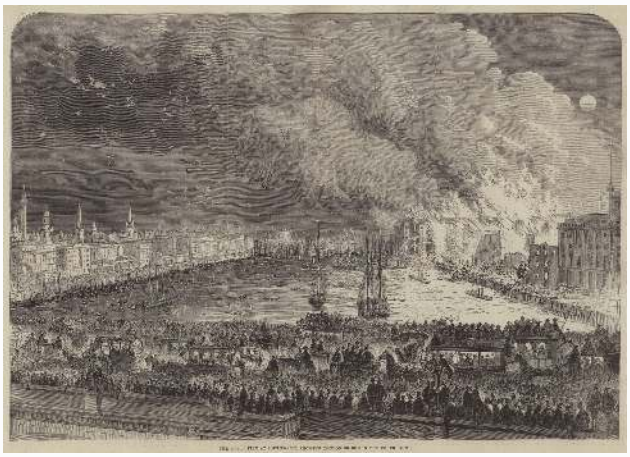


Figure 13

The Great Fire at Southwark, Showing London Bridge in the Foreground, *Illustrated Times*, 29 June 1861, 425, 1861, engraving. Collection of Look and Learn History Picture Archive / Bridgeman Images. Digital image courtesy of Bridgeman Images (all rights reserved).

Writers were frequently provoked to compare the fire to popular London sites of spectacular entertainment. As "a stimulant of the popular mind", what ought to have been a catastrophe became merely another modern urban sensation, engaging the viewer through heightened sentiment or novelty but not producing any serious or lasting effect.[85] Even the *Illustrated London News*'s sedate print became the basis for a blazingly colored magic lantern slide around 1900, morphing from serious reportage into a light distraction for children (ironically, it was part of a series detailing the heroism of the firefighters, who of course initially failed in their task at Tooley Street) (fig. 14). The *Saturday Review* declared that "incomparably the finest exhibition in or near London during the past week has been the fire in Tooley-street".[86] Some reporters explicitly linked the event to painted stage sets of the sort seen in the fiery shows at amusement parks: admitted the *Saturday Review*, "it was impossible to avoid … yielding to the delusion that we are at some grand entertainment on the model of the Surrey Gardens, and that this is a canvas

effigy of some city with a foreign name which is burning in felicitous make-believe for the amusement of the crowd up on the bridge".[87]

Figure 14

W. Butcher & Sons, *Our Firemen, Primus Junior Lecturer's Series*, circa 1901, lithographic magic lantern slide.

Such references were intended to suggest a mass taste that thrived on forms that were easily comprehended and in some way experientially impressive—in other words, characteristic of the new more trivial or superficial aesthetics of London entertainment. Surrey Gardens was a well-known pleasure site in early Victorian London, which mounted a number of outdoor panoramas involving destruction by flames, starting in 1837–1838 with the subject of Mount Vesuvius and following this with other volcanoes and even scenes replicating the Great Fire of 1666.[88] Given that the Tooley Street area had been characterized as a "smoldering volcano", and London's inhabitants as carelessly ignoring the threat to their cotton stores in the manner of incautious dwellers near a crater, it is perhaps not surprising that descriptions and illustrations sometimes described the 1861 fire as being "like a volcano in eruption".[89] Indeed, *L'Illustration*'s dazzlingly explosive image is visually very close to its own representation of Vesuvius a few years later (figs. 15 and 16).

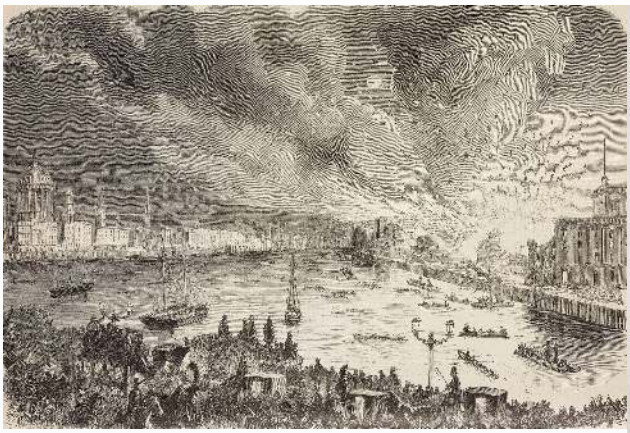


Figure 15

A Huge Crowd on a Bridge Watches a Fire Burning in Tooley Street, 23 June 1861, *L'Illustration, Journal Universel, Paris* 37, no. 957, 29 June 1861, 1861, engraving. Collection of DeA / Veneranda Biblioteca Ambrosiana, Milan. Digital image courtesy of De Agostini Picture Library (all rights reserved).

Figure 16

Vesuvius Erupting, from a drawing by Cochot, in *L'Illustration, Journal Universel, Paris* 51, no. 1297, 4 January 1868, 1868, engraving. Digital image courtesy of Marzolino/Shutterstock (all rights reserved).

While the *Illustrated London News* depicted its crowd as sparse and mostly working class, the popular prints portraying identical bourgeois spectators call attention to the ways that middle-class spectatorship was itself mass-produced through spectacular urban entertainment. Such images acknowledged the fact that urban dwellers, conditioned by realist entertainments that only imitated death, eagerly sought out danger as a form of pleasure, perhaps as a sign of confidence in the abilities of modern London to control it. The audience may be watching Empire itself burn, but at the same time it knows this does not represent any serious derailment of imperial primacy. Instead, Londoners expect the disaster to be managed and have accordingly turned out to watch the battle. The discourse of the sublime might have served as a mere echo of an old form that is now doing different work; no real terror is set in play when the sublime becomes the sensational.[90]

Moreover, images and descriptions of fiery destruction, while seemingly beyond human control, might instead suggest that rather than worrying about the prevention of such disasters, the modern individual could now concentrate instead on what really matters in this new world: averting financial shortfall. Insurance, after all, presents loss as "not loss". Under the new regime of fire insurance, the published lists of destroyed goods represented not that which was permanently gone but rather that which will be remunerated and replaced. The social form supported by insurance is, then, that of infinite renewability, which in turn encourages and supports the drives of extractive imperial capitalism.

Indeed, the affordances of fire itself sustained belief in a system in which nothing was ever lost but rather simply transmogrified. In his eulogy for Captain James Braidwood, who died leading the assault on the Tooley Street fire, the Reverend John Cumming asked, "What is the law that

every scientific man knows? Fire destroys nothing; it makes matter enter into new combinations".[91] While he was intending to console those mourning the loss of the heroic fire fighter, he might as well have been discussing the goods consumed by the blaze. Insurance promised that the property owner's lost investment would merely enter into a "new combination". Like fire itself, insurance was a converter of matter—in this case, rubble transformed into a monetary sum that could then turn that rubble back into its previous forms, promising an infinite renewal in which resources could be summoned to replace those that humans might have destroyed. Fire, as a process of conversion without loss, in this way analogizes insurance as conversion of an absence into a presence: cash. Some of the stunning inferno that we see in the images of the Tooley Street fire may have resonated with the grandeur of a world in which there was no real death or disappearance of anything.

Perhaps, however, there is not only complacency flashing from the spectacular sublime of the Tooley Street fire. It is true that the materials stored in the warehouses, as well as the buildings themselves, were not demolished but rather metamorphosized into gases, ash, ruins, and souvenir objects like those held in the Museum of London, molten glass fused with burnt jute, rice, wheat, and sugar.[92] However, what *was* in fact destroyed was the utility of the materials for human beings. Even if their financial value was replaced, those specific items were gone forever. The attention to the fantastic, dazzling aspects of their going up in smoke puts in play a recognition that the current system was based on representation and substitution, and potentially sets up an anxiety that this process ultimately will not be sustainable. Eventually the colonially and globally sourced cotton, tallow, hemp, and jute might just run out. Much as Victorians predicted the drying up of the coal deposits fueling the industrial era and the Anthropocene itself, much as the cotton famine was stalking this moment, such images of mass destruction of property could not help but ambivalently invoke both the comforting notion of replaceability and the haunting specter of entropic expiration.[93] The facile panaceas regarding the ability of the environment to cleanse itself and return to equilibrium seem in this light like the obvious disavowal they were. British imperial status could, then, be seen as predicated on spectacle rather than reality, its economic system and its ideological truths alike mere hollow performances, representations rather than reality. As James Pyne acknowledged, the Tooley Street fire seemed separate from the reality of any individual suffering, appearing rather as an imperial exhibition: "Altogether, and independently of its vast human interest, so grand a pyrotechnic display was never seen, nor one so costly planned by Imperial lavishness to please a spectacle-loving people".[94]

Perhaps, therefore, some of the Tooley Street images might resonate with unease regarding the dangers of the system of modern urban property accumulation and management. For one thing, the modern warehouses, with their egregious accumulation of capital, were known sources of danger.[95] For another, fire insurance companies faced opposition, enjoying a dubious reputation in mid-century Britain. It was thought that in competitive pursuit of profit with one another, they discouraged investigation and reporting of arson. In a parliamentary hearing, dock owner John Humphreys stated that "it is well known that a large proportion of the fires are wilfully caused; but insurance offices cannot defend, or otherwise they would lose their business; they would get the character of being litigious, and people would refuse to insure with them".[96] Other Britons viewed insurance companies skeptically as revenue-focused enterprises more inclined to encourage than to prevent accidents; in 1863 the *London Review* observed that "insurance offices, it has been said, like fires, on the ground that they alarm people and bring an influx of customers".[97]

In fact, unconvinced by the finding of spontaneous combustion in the Tooley Street insurance investigations, some people perpetuated rumors about arson committed by individuals from two extremes of the economic continuum. One camp believed that a wealthy warehouse owner destroyed his own goods to reap the insurance money; scrawled on a drawing by "J. De Roxtro" of the Tooley Street fire in the London Metropolitan Archive is the handwritten comment "there is little doubt but these fires were the work of incendiaries they usually occur when the building and stock of the forestallers are insured to heavy amounts and rather than they will sell at reduced prices they will waste the provisions the blessed God [h]as given for food".[98] Another narrative, posited by the author of *Six Questions of National Importance Relative to the Great Fire*, imagined a destitute, unemployed waterman "disaffected with world and his prospects", who looks "with a jaundiced eye on those stately warehouses and wharves, and contrasts the wealth of their owners with his own ne'er-ending lot of squalid poverty".[99] The fact that it was equally possible to imagine that either Capital or Labor might have attacked the system points to the pervasiveness of the distrust of the institutions in charge of commerce and shipping in this spot. As an indication that the Tooley Street fire did in fact unsettle the establishment enough for it to turn to tighter oversight of a range of practices, Parliament passed the Malicious Damage Act 1861 as an anti-arson measure, and, following a series of hearings, eventually put the fire brigade under state control rather than that of the private insurance companies.[100]

To return to the popular colored prints by Macdonald, Read & Co., and S. Marks & Sons, I would argue that in their awkwardness, indeed in their ugliness—the jarring style, abrasive color, and peculiar, unfixable perspectives—they acknowledge their existence as representations, insistently grating on our aesthetic sensibilities so that we must pay them attention. Further, the clumsy renderings of flame acknowledge that fire is not a thing but a process, inherently unrepresentable—it is combustion, metamorphosis, change itself. Analyzing these works provides insight into a world that burns for many reasons, not least of which could be the inequitable distribution of wealth, as well as the very system by which that wealth was accumulated through the exploitation of resources and peoples around the world.

Some of the depicted conflagrations of Tooley Street, then, could be understood as a warning aimed at a society which chose to see in the fire Pyne's "funereal pyre of the wealth of the world", rather than the loss of human lives or the deadly costs of a systemic exploitation of global resources for capital gain.[101] The anonymous author of *Six Questions* spoke openly of the "money-grubbing principle" that led people to save rent on land by building up rather than out, creating structures of "extreme danger … those inflammable magazines commonly called warehouses or 'bonded wharves'".[102] The phrase "inflammable magazines" suggestively indicates the explosiveness of a situation in which a nation dominated by the "money-grubbing principle" created dangerous conditions for its citizens.

Conclusion

In a century that encompassed the thrilling move from candlelight to gas illumination to electricity, images and descriptions of fire often point to and elucidate epistemological shifts, yielding insights into Victorian fears and desires. Prints and illustrations of the Tooley Street fire bring to light the ways this event may have set in play both pride in Britain's economic practices and anxiety over their potential instability or even immorality. These ephemera, themselves both products and agents of the forces of industrial imperial capitalism, enacted the era's great theme of metamorphosis in subject matter, materials, and modes of production. In the relentless, and in many cases newly identified, processes of chemical transformation, we get paper out of rags or

wood, ink and lithographic crayon out of lampblack (from carboniferous matter), and artworks themselves from processes driven by the conversion of coal to steam. In the images, as in the words of the epigraph to this article, we witness a river turned to blood, as well as tallow, as it changes states from solid to gas and escapes its frame, both literal and in representation, analogizing the way fire and the new

Acknowledgements

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About the author

Nancy Rose Marshall is a professor of Victorian art and visual culture at the University of Wisconsin–Madison. Her books, catalogues, and articles seek to creatively illuminate nineteenth-century British ways of thinking and making through close examinations of form and materiality, embedded in Victorian textual evidence. Marshall's current project focuses on the shifting representations and meanings of fire, and this interest in the intersection of art and science has also generated an edited volume, *Victorian Science and Imagery* (University of Pittsburgh Press, 2021). Her previous book, *City of Gold and Mud* (Yale University Press, 2012), explored the formation of modernity through the gendered and raced images of Victorian London.

Footnotes

1. *Illustrated History of the Great Fire, and A Biography, with Lithographic Ills, Sketches of the Fire, Portrait, and Funeral Procession of Mr. Braidwood* (London: Henry Lea, 1861), 12.
2. *Great Fire of 1861: Total Destruction of Cotton's Wharf* (H. Vickers, 1861), 5.
3. *Dickens's Dictionary of London* listed it as a historical event in its 1882 edition. "Calendar for June 1882" (London: Macmillan, 1882), n.p. There is still a plaque to the fire and to James Braidwood on the site today.
4. As established by scholars on Victorian thermodynamics such as Barri Gold, *ThermoPoetics: Energy in Victorian Literature and Science* (Cambridge, MA: MIT Press, 2010), 6–14 passim.
5. In 1862 circulation of the *Illustrated London News* was 300,000, making it by far the most successful paper of its kind. Patrick Leary, "A Brief History of the Illustrated London News", *Illustrated London News Historical Archive 1842–2003* (Independence, KY: Cengage Learning, 2011). https://www.gale.com/binaries/content/assets/gale-us-en/primary-sources/intl-gps/intl-gps-essays/full-ghn-contextual-essays/ghn_essay_ilnha_leary1_website.pdf.
6. "Great Fire in Southwark", *Illustrated London News*, Supplement, 29 June 1861, 615. Other estimates ranged from £1 million to £4 million. The "Report from the Select Committee on Fires in the Metropolis" stated that the amount was £1.2 million. *Reports from Committees* 4 (London: House of Commons, 1862), 74; Arthur Munby cited "two millions, at least, of property destroyed". *Diary*, 22 June 1861. https://www.victorianlondon.org/dates/tooleystreet.htm. So, too, did the *Illustrated History of*

the Great Fire, 31. The caption for Read & Co.'s print stated the damages were upward of £3 million. P. Macdonald's print calculates the loss as from £2 million to £4 million. The lists of goods included coffee, tea, cocoa, sugar, hops, rice, cotton, silk, spices (pepper, ginger, cayenne, nutmegs, mace, cloves, cardamoms, cassia), rags, flax, hemp, jute, cordage, leather, goatskins, buffalo hides, cochineal, gums, gutta-percha, butter, cheese, ham, bacon, potatoes, peas, figs, clover seed, safflower, oil, castor oil, shellac, turpentine, tar, aqua fortis (nitric acid), saltpeter, arsenic, white lead, yellow ochre, and glue, along with more obscure materials such as cutch, galls, gambier, and senna. List assembled from numerous reports, including "Relics of the Past", *Illustrated London News*, 6 July 1861, 20; Braidwood, *Fire Prevention and Fire Extinction*, 23. "The Great Fire", *Illustrated Times*, 29 June 1861, 416.

7. "Meliboeus at the Fire", *Chambers's Journal of Popular Literature, Science, and the Arts* 16, no. 398 (17 August 1861): 102. "A to Q warehouses, all four floors high, contain[ed] colonial produce". "Official Report of Damage", *Great Fire of 1861. Total Destruction of Cotton's Wharf*, 7.
8. "Fire-Doomed Cities", *Leisure Hour: A Family Journal of Instruction and Recreation*, no. 512 (17 October 1861): 663.
9. See F. Silber, "Der Brand in London", 1861 ("Scene at Cotton's Wharf on Sunday Morning June 23rd 1861"), and Louis Rochefort, "The Great Fire at London Bridge: Scene at Cotton's Wharf on Sunday Morning June 23rd 1861". Notably, these imitators changed the dates, altered details and applied color, relying on more spectacular effects to move away from some of the orderly aspects of the original.
10. Andrea Korda, *Printing and Painting the News in Victorian London: The Graphic and Social Realism 1869–1891* (Farnham, Surrey: Ashgate, 2015), 35–37. As she notes, the ways in which news media then and now underscored the idea of "seeing for yourself" suggest a desire to convince the viewer that the event portrayed is unmediated, its forms of representation invisible (20). Korda also cites John Tagg's arguments in *The Burden of Representation* about the ways the realist form of signification is complicit with dominant bourgeois values, finding in such imagery "a disciplinary function, reinforcing a dominant system of power". Korda, *Printing and Painting the News*, 6.
11. P. Macdonald was a publisher/printer. https://www.britishmuseum.org/collection/term/BIOG256793. The address on the print is 30 Great Sutton Street, Clerkenwell.
12. W.D. Richmond, *Colour and Colour Printing as Applied to Lithography* (London: Wyman & Sons, 1885), 49.
13. Macdonald, caption, "The Great Fire Near London Bridge on Saturday 22 June 1861".
14. "Meliboeus at the Fire", 101.
15. Read & Co. are listed at "10, Johnson's Court, Fleet Street". The British Museum identifies them as a publisher/printer also known as "M. Read & Co". https://www.britishmuseum.org/collection/term/BIOG132257. Read & Co. was familiar with the process of representing fire in chromolithograph form, having produced in 1856 a print of Covent Garden theater (British Museum, 1880,1113.3107) ablaze.
16. For more on this medium, see Michael Twyman, *A History of Chromolithography: Printed Colour for All* (London: British Library, 2013); Richard Benson, *The Printed Picture* (New York: Museum of Modern Art, 2008). For a period source, see W.D. Richmond, *Colour and Colour Printing as Applied to Lithography* (London: Wyman & Sons, 1885).

17. P. Macdonald's print is identified as a "coloured lithograph" by the British Museum, but it really does not appear to be in this medium; more likely it is a "woodcut", as described by the London Metropolitan Archives. Print curator Drew Stevens observes that it is an all-printed product without any hand coloring. Stevens also notes that Read & Co.'s lithograph might have had some color added by hand rather than by the lithographic process itself (Private communication, 2 May 2021). S. Marks & Sons' work appears to be a hand-tinted wood engraving.
18. P. Macdonald of 30 Great Sutton-Street, Clerkenwell, is listed as the Secretary of Field Lane Sabbath School, West Street, Smithfield, in *The Metropolitan Charities Being an Account of the Charitable, Benevolent, and Religious Societies; Hospitals, Dispensaries, Penitentiaries, Annuity Funds, Asylums, Almshouses, Colleges, and Schools in London and Its Immediate Vicinity* (London: Sampson and Low, 1844), 164. This became the Field Lane Ragged School, the first ragged school. He seems to have been a teacher in the early days of the school. *Ragged School Union Quarterly Record*, vols. 1–2 (London: Kent & Co., 1876), 51.
19. "The Dreadful Fire in London", *Reynolds's Miscellany* 27, no. 684 (20 July 1861): 57. The "draught created by the fire … [was] so great as to suck in a large barge coming up the river with her sail set … three men on board". "Meliboeus at the Fire", 101.
20. Anne Humpherys and Louis James, eds., *G.W.M. Reynolds, Nineteenth-Century Fiction, Politics, and the Press* (Aldershot, Hampshire: Ashgate, 2017), 4–5.
21. Charlotte G. Boger writes of her eyewitness experience in *Southwark and Its Story* (London: Simpkin, Marshall & Co., 1881), 223.
22. *Illustrated History of the Great Fire*, 8.
23. The *Illustrated London News* included an image of the ruins identified as the spot where Braidwood fell.
24. A policeman stated that he saw at least five men perish. "The Great Fire", *Illustrated Times*, 416. It was agreed that there were a "great many lives lost in pursuit of floating grease". *Illustrated History of the Great Fire*, 28.
25. "Meliboeus at the Fire", 102. Committed to social improvement and modeling middle-class values, *Chambers's* under Pyne would have been supportive of the establishment. Michael Feldberg, "Knight's Penny Magazine and *Chambers's Edinburgh Journal*: A Problem in Writing Cultural History", *Victorian Periodicals Newsletter*, no. 3 (1968): 13–16.
26. Read & Co., publishers. "The Great Fire Near London Bridge Saturday, June 22nd 1861". Lithograph.
27. James Braidwood, *Fire Prevention and Fire Extinction* (London: Bell & Daldy, 1866; his essay 1830), 23. "Hemp is largely grown in England for its fibre, and still more largely in Russia, from which country vast quantities are annually imported for the use of our rope-makers". *Descriptive Guide to the Museum of Irish Industry* (Dublin: Alex Thom & Sons, 1857), 85.
28. The cause of the fire was the "spontaneous combustion of a lot of jute. The flames communicated themselves to a quantity of saltpetre from thence to the hemp and cotton, and finally assailed the tallow, which polluted the atmosphere of London for upwards of a fortnight". "*The Docks of London"; Their deficiencies, defects, and disadvantages; showing how the port will be improved, and its shipping accommodated, by the New Dagenham (Thames) Docks* (London: Effingham Wilson, 1868), 64. Jute was "very largely cultivated in Bengal, whence an annually increasing import into England takes place". *Descriptive Guide*, 86.

29. Bill Brown, "Thing Theory", *Critical Inquiry* 28, no. 1 (2001): 3–4. http://www.jstor.org/stable/1344258.
30. "Another Jute Fire", *London Review* 9, no. 231 (3 December 1864): 607.
31. "Fire-Doomed Cities", 663. Duncan Andrew Campbell, *English Public Opinion and the American Civil War* (Woodbridge, Suffolk: Boydell & Brewer, 2004), 49–54.
32. "The Prize Court sitting in Washington has condemned an English Schooner and her cargo, valued at 22,000 dollars, for endeavouring to run the blockade of the VA waters". "Civil War in America", *Illustrated London News*, 6 July 1861, 3.
33. "The Future of Cotton", *Illustrated London News*, 8 June 1861, 519; the *New York Times* listed the weight of cotton from each country in 1860 as 1,115,890,608 lb. of cotton from America vs. 204,141,168 lb. from India (America therefore produced five-sixths of Great Britain's cotton). The stated value of this amount was £80 million or $4 billion. "England and the Cotton Supply", *New York Times*, 1 June 1861, 4. In 1860 England used over a billion pounds of cotton, 77 percent of which was from the United States, but by 1862 the imports would drop by 96 percent in what became known as the "cotton famine". William J. Phallen, *The Consequences of Cotton in Antebellum America* (Jefferson, NC: McFarland & Co., 2014), 167.
34. "It is indeed, more than probable that these States, by the acquisition of greater independence, will be able to enter into the markets of Europe as purchaser, to a larger extent … and this could not fail to be advantageous to British commerce". Charles Capper, *The Port and Trade of London* (London: Smith, Elder & Co., 1862), 306. For more on the complexities of these networks, see Zach Sell, *Trouble of the World: Slavery and Empire in the Age of Capital* (Chapel Hill, NC: University of North Carolina Press, 2020), particularly chapter 5, "White Overseers of the World: U.S. Cotton and Colonial India", 72–84.
35. "Unless we take effectual steps to ensure ourselves and our interests against sudden ruin, we shall have none but ourselves to blame for the ravages of so fearful a calamity should it unhappily overtake us". "The Future of Cotton", 519.
36. "A total disregard of visible danger … is certain of being punished, sooner or later, by sudden and overwhelming disaster". "The Future of Cotton", 520.
37. "We should strenuously exert ourselves to defeat an experiment so largely fraught with evils to humanity", opined the writer. "The Future of Cotton", 520.
38. "Relics of the Past", *Illustrated London News*, 20.
39. Due to the fact that cotton grew so readily in "fertile virgin soil", little attention had been paid to the needs for its culture. "The Culture of Cotton", *Illustrated London News*, 5 October 1861, 344.
40. "The Great Fire", *Illustrated Times*, 416.
41. Charlotte Boger mentions how she saw "the impossible myth of one's nursery days realized by the Thames being literally on fire". *Southwark and its Story*, 223. "The Thames has been literally and in an awful sense, set on fire … No imagination could surpass the terrors of that tremendous spectacle", *Daily Telegraph*, 24 June 1861, in London Metropolitan Archives Scrapbook on the Tooley Street fire. Sun Fire Assurance MS 38840/1. This is also the caption of the *Reynolds's Miscellany* plate (fig. 10). Adele, "Set Fire to the Rain", *21*, 2011.
42. *Great Fire of 1861*, 4; Munby, *Diary*; Boger, *Southwark and Its Story*, 223.
43. "Meliboeus at the Fire", 102.
44. "The Great Fire", *Saturday Review*, 666.

45. With thanks to master electrician Chris Murphy for his incendiary expertise. Having been drawn to perform this recreation, I was struck to learn of Matthew C. Hunter's recreations of chemical experiments as a way of asking that art historians engage in "thinking the fine and industrial arts together", allowing "equal footing to form and materials, the visible and the invisible". *Painting with Fire: Sir Joshua Reynolds, Photography, and the Temporally Evolving Chemical Object* (Chicago: University of Chicago Press, 2019), 184. This would appear to represent a fascinating new direction for the field, but one that is beyond the scope of this article.
46. "*The Docks of London*", 64.
47. "Meliboeus at the Fire", 102.
48. *Great Fire of 1861*, 6.
49. Boger, *Southwark and Its Story*, 224.
50. The stench of its burning and its unpleasantness to denizens of the city can be read as an olfactory haunting of the species exploited on a newly massive scale. Janice Carlisle discusses the way in which the response to the smell of tallow candle is an indicator of class and character in George Eliot's *Felix Holt*. *Common Scents: Comparative Encounters in High-Victorian Fiction* (Oxford: Oxford University Press, 2004), 8–9. As an indication that some Victorians themselves were aware of this fact, the growing vegetarian movement was working to replace animal with vegetable tallow, an initiative that worked hand in hand with attempts to bring down the price of the substance. Henry S. Salt imagined a dialogue between a non-vegetarian and a vegetarian to run thus: Non-vegetarian, "no carcases [*sic*] to supply us with hides, bone and tallow? … we should soon have no soap, no candles … relapse into barbarism". Response: "vegetarian soap, and vegetarian candles are now in the market". *The Logic of Vegetarianism: Essays and Dialogues* (London; Ideal Publishing Union, 1899), 90. The decades of the 1850s and 1860s saw a fall-off of interest in this movement after the foundation of the Vegetarian Society in the 1840s, but vegetarian soap was part of the movement from its inception, James Simpson providing it to the poor in Manchester in 1845. James Gregory, *Of Victorians and Vegetarians: The Vegetarian Movement in Nineteenth-Century Britain* (London: Tauris Academic Studies, 2007), 49–52, 30, 33.
51. Leslie Tomroy, "Moving East: Industrial Pollution in London 1800–1920", in *A Mighty Capital under Threat: The Environmental History of London, 1800–2000*, ed. Bill Luckin and Peter Thorsheim (Pittsburgh: Pittsburgh University Press, 2020), 136.
52. Tomroy, "Moving East", 137–139.
53. Tallow is toxic when released into waterways. "Department of Transportation: Coast Guard Vessel Response Plans", *Federal Register* 61, no. 9 (12 January 1996): 1076.
54. As Tomroy notes, most of these various efforts had little impact for some time, given the lack of enforcement mechanisms. Tomroy, "Moving East", 136.
55. See Christopher Hamlin, *What Becomes of Pollution? Adversary Science and the Controversy on the Self-Purification of Rivers in Britain, 1850–1900* (London: Routledge, 2019). Anthony S. Wohl, *Endangered Lives: Public Health in Victorian Britain* (Cambridge: Harvard University Press, 1983), 238.
56. Frank Richard Cheshire, *The Scientific Temperance Hand-book for Temperance Teachers and Advocates, and for Senior Classes in Schools* (London: National Temperance Publication Depot, 1891), 47.
57. "The Power of the Sun", *English Mechanic and Mirror of Science*, 19 October 1866, 55.

58. In 1860 the value of tallow imported from Russia was over £3.5 million. Capper, *The Port and Trade of London*, 203, 201–202.
59. Capper, *The Port and Trade of London*, 204–205. Another report of the previous year commented: "The Tallow Trade during the past year, has been in a most unsatisfactory state, the usual laws of supply and demand having been *entirely ignored* by a most unusual speculation … the feeling against these speculations has been so great, that consumers have resorted to every available substitute, *curtailing their consumption* as much as possible". This resulted in preventing the Moscow speculators from dominating the market entirely. "Reports of the Trade of the United Kingdom During the Year 1859", *Journal of the Statistical Society of London* 23 (March 1860): 89. "The tallow market is one of those fields for speculation where large amounts are lost and won; but there is a lull at present in the state of affairs". "No doubt many a shipper and broker looks back longingly at the high prices at the close of 1860". Currently there were "heavy stocks in store". "The Tallow Trade", *Farmer's Magazine* 44, no. 109 (1861): 291.
60. "Oils of various descriptions, consequently, began to supersede the use of tallow. … At the same time the English merchants sought to develop the tallow trade of South America, Australia, and other countries". Russian–British relations were not exceptionally strong in the wake of the Crimean War, and some of the impetus to move away from Russian tallow import may have been due to this fact. Remarkably, the Tooley Street fire actually served as a temporary counter to this precipitous loss; although there is no evidence that Britons sought to lay blame at Russia's door for this coincidence, the general suspicious circumstances of the fire, never entirely explained, did mean that rumors were rampant regarding its origin. "The fall, however, was checked by a large fire at the riverside wharves". Capper, *The Port and Trade of London*, 204–205.
61. Tamara S. Wagner, *Financial Speculation in Victorian Fiction: Plotting Money and the Novel Genre, 1815–1901* (Columbus: Ohio State University Press, 2010), 4. Mary Poovey likewise argues that economic and literary texts should be considered in relation to one another. *Genres of the Credit Economy: Mediating Value in Eighteenth and Nineteenth-Century Britain* (Chicago: University of Chicago Press, 2008), 4, 6.
62. Wagner, *Financial Speculation*, 4.
63. Anna Kornbluh, *Realizing Capital: Financial and Psychic Economies in Victorian Form* (New York: Fordham University Press, 2018), 2, 22.
64. The manager of the Victoria docks, Charles Capper, described the false prices as "fictitious" in *The Port and Trade of London*, 204–205. In speculation, D. Morier Evans states, the value of goods "may be taken up far above their intrinsic worth". *Speculative Notes and Notes on Speculation* (London: Groombridge & Sons, 1864), 114. He observes that the greatest speculation was currently in cotton.
65. Peter Brooks, *Realist Vision* (New Haven, CT: Yale University Press, 2005), 14, in Wagner, *Financial Speculation*, 12. Brooks relates "language as a system to money: meaning in both systems depends on exchange value, what you get in return for what you are offering. And the great realist novelists come to understand that words, like shillings or francs, are part of a circulatory system subject to inflation and deflation, that meanings may be governed by the linguistic economies and marketplaces of which they are part". Wagner's note 41 (184).
66. The Sun, Phoenix, and Royal Exchange fire insurance companies first joined forces in the early 1800s, and in 1833 others followed suit to collectively form the London Fire Engine

Establishment. Frederick Henry Radford, *"Fetch the Engine": The Official History of the Fire Brigades Union* (London: FBU, 1951), 18–19.

67. Paul Fyfe, *By Accident or Design: Writing the Victorian Metropolis* (Oxford: Oxford University Press, 2015), 101.
68. Fyfe, *By Accident or Design*, 113.
69. "Great Fires", *All the Year Round* 5, no. 115 (13 July 1861): 382.
70. Fyfe, *By Accident or Design*, 113.
71. Fyfe, *By Accident or Design*, 105–106.
72. "Report from the Select Committee on Fires in the Metropolis", in *Reports from Committees* 4 (London: House of Commons, 1862), 67.
73. "Great Fire", *Illustrated London News*, 615. The *News* renewed this topic with another article in its next edition. "Relics of the Past", 19.
74. Robin Pearson, *Insuring the Industrial Revolution: Fire Insurance in Great Britain 1700–1850* (Aldershot, Hampshire: Ashgate, 2004), 3.
75. Fyfe, *By Accident or Design*, 101–102.
76. Freedgood is citing Fredric Jameson, "the political unconscious is revealed when a work 'insistently direct[s] us to the informing power of forces or contradictions which the text seeks in vain to wholly control or master'" (*The Political Unconscious: Narrative as a Socially Symbolic Art* (Cornell: Cornell University Press, 1981), 49), in *Victorian Writing about Risk: Imagining a Safe England in a Dangerous World* (Cambridge: Cambridge University Press, 2000), 3.
77. Freedgood, *Victorian Writing about Risk*, 9.
78. Freedgood, *Victorian Writing about Risk*, 9.
79. "Risk of various kinds must be encouraged as pleasurable and profitable activities or else economic and imperial expansion would stagnate; at the same time, risk must be represented as painful so that its rewards can be morally justified. Risk was continually constructed and reconstructed to evoke a usefully mutating array of attitudes". Freedgood, *Victorian Writing about Risk*, 9.
80. *Illustrated History of the Great Fire*, 27. The *Observer* agreed: "From whatever point of view it was seen the spectacle presented was grand and terrible—a mighty element in the full tide of its power, defying all the puny efforts of man". "Great Fire at Cotton's Wharf", *Observer*, 23 June 1861, n.p. In the London Metropolitan Archive Scrapbook on Tooley Street Fire. Sun Fire Assurance MS 38840/1.
81. Edmund Burke, *A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful* (London: R. & J. Dodsley, 1747).
82. Fyfe, *By Accident or Design*, 8.
83. Pearson, *Insuring the Industrial Revolution*, 3–4.
84. A single account of the Tooley Street fire includes both perspectives; after recognizing the up-to-date mechanisms in place to quell the blaze, the writer of the *Illustrated History of the Great Fire* asked in a snide and xenophobic aside why in fact Britons strove to fight the fire at all, rather than "at once adopt[ing] the system of fatalism which causes the Turks to regard a fire as a special punishment inflicted from Above … calmly look[ing] on as a fire extends, and … exclaiming 'Allah is great'?" *Illustrated History of the Great Fire*, 45.
85. *Six Questions of National Importance Relative to the Great Fire in Tooley Street* (London: Elliot, 1861), 3.
86. "The Great Fire", *Saturday Review*, 666.

87. "The Great Fire", *Saturday Review*, 666.
88. These shows attracted as many as half a million people. Richard Altick, *The Shows of London* (London: Belknap Press of Harvard University Press, 1978), 325. The Surrey Gardens displays sometimes included the Great Fire of London in their repertoire, as seen in an 1845 image in the *Comic Almanack*, portraying the showmen at the spectacle of the Great Fire of 1666. Anon., "The Great Fire of London", *Comic Almanack* for 1845. https://www.gutenberg.org/files/52204/52204-h/52204-h.htm#y1845, opp. 75.
89. "Meliboeus at the Fire", 100.
90. Elsewhere I have explored the close relationship between sensation and sublimity at mid-century. See Nancy Rose Marshall, "'Startling; Nay, Almost Repulsive': Light Effects and Nascent Sensation in John Everett Millais's *The Rescue*", *Journal of Victorian Culture* 21, no. 4 (2016): 514–547.
91. The Rev. John Cumming, "The Last Fire: A Funeral Sermon on the late Mr Braidwood", preached in the National Scotch Church, Covent Garden, 30 June 1861. Scrapbook. Tooley St Fire. Sun Fire Assurance. London Metropolitan Archives. MS 38840/1.
92. "The extraordinary agglomerations to be found among the ruins were wonderfully curious; slates, glass, and iron, were fused into rough and picturesque masses, with all sorts of nondescript material. The fire at the Tower of London filled all the curiosity-shops with numbers of such relics, but those to be found among the ruins of the great fire of 1861 were still more wonderful, and fantastic beyond description". *Illustrated History of the Great Fire*, 39.
93. In the same decade as the Tooley Street fire, William Stanley Jevons predicted that Britain would run out of coal. *The Coal Question* (London: Macmillan, 1866). For more, see Peter Thorsheim, *Inventing Pollution: Coal, Smoke, and Culture in Britain Since 1800* (Athens, OH: Ohio University, 2006), 45–47.
94. "Meliboeus at the Fire", 102.
95. The *Saturday Review* commented that "the noble range of modern buildings filled with the produce of every country, and fitted with every contrivance for receiving and shipping goods" was poised to endanger the city and the country to a much greater extent than the old wharves nearby, as "the effect of a conflagration upon the neighborhood would be infinitely more disastrous". They continued that previously "the business done on the banks of the Thames, as well as the mode of doing it, has always involved great risk of loss from fire. But the risk was about equal everywhere, and the loss of property on any particular occasion was likely to be moderate". "The Great Fire", *Saturday Review*, 667.
96. "Report from the Select Committee on Fires in the Metropolis", 78.
97. "Steam Fire-Engines", *London Review* 7, no. 158 (11 July 1863): 51. Likewise the *Examiner* equated the "interest taken by Fire Insurance Companies in fires, and their tendency to preserve them" with that of "a country gentleman and his game". "Fire and Water", *Examiner*, 29 June 1861, 404.
98. J. De Roxtro, *Tooley Street*, 1861. Metropolitan Prints Collection. London Metropolitan Archive, record no. 285694, catalogue no. SC_PZ_BE_01_117.
99. *Six Questions*, 4.
100. Charles John Bunyon et al., *The Law of Fire Insurance* (London: Charles & Edwin Layton, 1906), 455; Radford, *"Fetch the Engine"*, 20.
101. "Meliboeus at the Fire", 102.

102. The phrase also drew attention to the fact that saltpeter, one of the primary components of gunpowder, was stored in Cotton's Wharf and made for the startling explosions portrayed by Read and Macdonald, which shook the ground and sent up showers of burning material around the buildings. *Six Questions*, 5.

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