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On Fire: Industrialization, Media Technologies, and the Imagination, 1800-1900

A Dissertation submitted in partial satisfaction
of the requirements for the degree of

Doctor of Philosophy

in

English

by

Anne Sullivan

September 2018

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UCR is known for fostering a remarkably collegial and friendly environment, and it is humbling to consider the number of people who have proven that to me on countless occasions. Geoff Cohen, Dana Simmons, and Erica Edwards wrote letters of

for Mum and Maureen

ABSTRACT OF THE DISSERTATION

On Fire: Industrialization, Media Technologies, and the Imagination, 1800-1900

by

Anne Sullivan

Doctor of Philosophy, Graduate Program in English
University of California, Riverside, September 2018
Dr. Susan Zieger, Chairperson

My dissertation, "On Fire: Industrialization, Media Technologies, and the

Imagination, 1800-1900," considers the intersecting discourses of media literacy and

industrialization, and argues that fire, in its multiple forms, is a media technology that

must be recovered and situated within an archive of moving images. Understanding fire

as a media technology allows for a rigorous examination of these discourses and provides

insight into nineteenth-century imaginations. My dissertation focuses on Victorian

literature and culture, but it also examines continuities between the Victorian and

Romantic eras without grouping literary texts and media forms into linear or reductive

teleologies.

Chapter 1, "Flame, Page, and Screen: Recovering Fire-Gazing as a Victorian

Media Technology," argues that flame is a moving-image technology and recovers fire-

gazing as an intimate form of viewing and producing moving pictures. The chapter also

locates latent anxieties about automation in fireside reverie, fears that are usually

associated with late nineteenth-century entertainment and communication media. Chapter

2, "Matches and Street Lamps: Illuminating Instruments and the Moving Image,"

examines matches and street lamps as image-making technologies within the larger print and visual culture that determined their iconographic imagery. As material culture continued to change in tandem with innovations to heat and light, these outmoded vehicles for firelight became potent symbols of a pre-industrial imagination despite their own industrial origins. Chapter 3, "Burning Down the House in 1834: Spectacular Fire and Live Audience Spectatorship," argues that the Parliament fire inaugurated modern live-audience disaster spectatorship by analyzing the crowds that gathered on the night of the fire as well as contemporaneous representations of the fire in periodicals, literary annuals, and dioramas. Chapter 4, "Subterranean Fire in the Sky: Animating Vesuvius in Victorian Imaginations," shows that the enduring myth of subterranean fire provided an inexhaustible narrative technology for the real, imaginary, and ideological engines of British imperialism. My conclusion, "The 1936 Crystal Palace Fire and the End of the Victorian Era," analyzes the 1936 Crystal Palace fire as an emblem of the mass media consumption that had begun to emerge in the nineteenth century.

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Introduction

Fire ignited paradoxical and competing values in nineteenth-century Britain:

primitivism and modernity, vitality and destruction, intimacy and spectacle. The

introduction of "artificial" gas flames and electric light rendered the incendiary element

more mutable still, construed as an agent of industrial progress or, alternatively, as an

extension of the "hearth and home" that apparently resisted an increasingly technologized

era. Despite the material displacement of "natural" firelight as the primary source of

warmth and illumination in public and private spaces, fire continued to feature

prominently in British imaginations. As a Romantic metaphor for reverie or as a means

for projecting moving images from the magic lantern, fire was a shared substance and

energy across literature, art, public displays, and proto-cinematic entertainments.

My dissertation, "On Fire: Industrialization, Media Technologies, and the

Imagination, 1800-1900," considers the intersecting discourses of media literacy and

industrialization, and argues that fire, in its multiple forms, is a media technology that

must be recovered and situated within an archive of moving images. Understanding fire

as a media technology allows for a rigorous examination of these discourses and provides

insight into nineteenth-century imaginations. Since my dissertation relies on the history

of animation technologies, my project will briefly contextualize earlier forms of media,

such as the seventeenth-century invention of the magic lantern, but will primarily focus

on the nineteenth-century reception and modification of those technologies. My

dissertation focuses on Victorian literature and culture, but it also examines continuities

between the Victorian and Romantic eras in order to excavate fire as an understudied

media technology without grouping texts and media devices into linear and reductive teleologies from the Romantic to the Victorian and from early forms of animation to cinema.

My joint literary-media studies project arrives at the intersection of two concurrent histories: the history of industrialized artificial light and the history of the moving, animated image. As many scholars have demonstrated, literature and print media responded to or precipitated changes in nineteenth century perceptions. Beginning in the eighteenth century and continuing through the nineteenth, forms of entertainment media delighted viewers with new sensory experiences, from the lights and sounds of the Eidophusikon and theatrical magic lantern shows to other forms of mechanized animated images, such as the phenakistoscope, praxinoscope, mutascope, and kinematescope. Many of these inventions relied on illumination or projected light to make the visual illusion visible to the viewer. Lighting, as with any material cultural history of modernization, underwent startling transformations within a short period of time, a dizzying revolution paralleled by the proliferation of entertainment media, the publication and distribution of print media, the population boom, and the increase in industrial labor. Firelight, though, became a nexus for cultural anxieties about modernization because of its material and symbolic connections to the past.

Nineteenth-century British literature engages with the fraught valuation of firelight. Mary Wollstonecraft Shelley's *Frankenstein: or, the Modern Prometheus* (1818) charts the hubris of a mere mortal's attempt to imbue inanimate material with the vital spark of life. In one poignant scene, *Frankenstein* foregrounds fire as a critical step

in the process of civilization during the creature's early encounter with fire as it learns

through painful and unsupervised experimentation that fire gives off heat as well as light.

The lesson manifests the Romantic conceptualization of Nature as a teacher and it helps

ignite the creature's consciousness through hypothesis and experimentation. However,

fire also represented the uneasy division between nineteenth-century perceptions of

civilization and "savagery." In Daniel Defoe's *Robinson Crusoe* (1719), which remained

immensely popular throughout the nineteenth century, Crusoe's hearth "pav'd with some

square Tiles of [his]…own baking and burning" represents the bourgeois accumulation of

his tropical "castle," and the structural confinement of fire distinguishes Crusoe's moral

and evolutionary separation from the "savages" who roast their enemies on open flames

(Defoe 150, 176, 199-201).[1] As man's Promethean, first technology, fire represented both

progress and the potential for devolution. This tension occurred because certain fires

could disrupt perceptions of chronological time. The bonfires that populate Egdon Heath

in Thomas Hardy's *The Return of the Native* (1878) celebrate the seventeenth century

defeat of Guy Fawkes and recall earlier pagan traditions, and representations of Viking

funereal pyres, as Nancy Rose Marshall has demonstrated, reminded readers and viewers

of pre-Christian times while also offering a way for nineteenth century British culture to

accept cremation as an appropriate funereal practice.[2]

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[1] Andrew O'Malley and has shown that Defoe's novel spurred an entire subgenre of nineteenth-century children's books, the Robinsonade. *Crusoe* seeped into Victorian novels as well, such as Wilkie Collins's *The Moonstone* (1868), in which it operates as a comical source of solace and advice for a house-steward, Gabriel Betteridge.

[2] See Trish Ferguson's "Bonfire Night in Thomas Hardy's *The Return of the Native*" for an analysis of the bonfire's simultaneously topical, pagan, and carnivalesque

These are but a few of the touchstones that demonstrate the affective relationships that accumulated and shifted around firelight in the nineteenth century as fire, a charged and highly symbolic element, became the subject of state governance through a centralized firefighting department and through the industrial combustion of coal. The binaries between civilization and savagery and the shifting evaluation of fire carried over into literature and media entertainments since firelight was the means of projecting animated images and was perceived as a symbol for the imagination. As the references above suggest, the publication dates of the primary materials in this dissertation do not always tidily conform to the date range in its title. Though some of my primary materials extend beyond the 1800-1900 boundaries, this project articulates affective and technological shifts that occurred during the nineteenth century.

My project shares concerns with other literary scholars who analyze nineteenth-century British texts within their cultural milieu and examine literacy not purely as an alphabetic form of reading, but also as a set of reading and interpretation practices that included page, stage, and screen. Luisa Calè has analyzed readers as spectators by examining the continuum of reading and viewing practices that emerged from the material interplay of books, paintings, and exhibition spaces in late eighteenth-century England. Jay David Bolter and Richard Grusin's seminal work on remediation, which they theorize as non-linear exchanges occurring across forms of media in a recursive and ongoing phenomenon, has been crucial for facilitating the shared interests of literary and media scholars. Helen Groth has extended the concept of remediation to understanding

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associations, and see Marshall's analysis of Viking funeral pyres in "Victorian Imag(in)ing of the Pagan Pyre: Frank Dicksee's *Funeral of a Viking*."

"inter-medial" forms of Victorian literacy, from alphabetic, text-based literacy to a set of reading practices that encompassed print narratives as well as visual entertainments.

My project builds from such joint literary-media projects by identifying fire as an overlooked media technology that operates within the shared media ecologies of printed texts, paintings, visual entertainments, and mechanized animation. As a result, my dissertation shares a kinship with "media archaeologists [who] have begun to construct alternate histories of suppressed, neglected, and forgotten media that do not point teleologically to the present media-cultural condition as their 'perfection'" (Huhtamo and Parikka 3). But it is also a literary project, interested in the ways that literature and media intersect in the formation of new forms of literacies, the reading and interpretation of multi-sensory stimuli that make meaning, and the study of affective narratives and communities that form around outmoded fire-based media. Studying literature alongside fire-based media as it responded to innovations in illumination allows for a shared set of concerns to emerge about attention, immediacy, personalization, commodification, and media consumption.

Cultural Studies of Artificial Light

Two monograph-length studies of nineteenth-century innovations to industrialized light inform the historical dates and theoretical approaches in this dissertation: Wolfgang Schivelbusch's *Disenchanted Night: The Industrialization of Light in the Nineteenth Century* (1983, English translation 1988) and Christopher Otter's *The Victorian Eye: A*

Political History of Light and Vision in Britain, 1800-1910 (2008).[3] Unless otherwise

noted, Otter is my source for references to historical innovations. After a brief overview

of key moments in the historical timeline of illumination, I sketch Schivelbusch and

Otter's main concerns below, describe how scholars of nineteenth-century British

literature and culture offer refinements, and begin to explain how my project intervenes

by theorizing fire as a media technology and by more fully examining affective responses

to firelight. I should note here that when I refer to "artificial light" I mean gas and electric

light, though some scholars contend that any form of light not emanating from the sun or

moon could be considered "artificial" light. My use of the term "artificial" echoes the

initial reception of gas and electric lighting and re-familiarizes readers with the concept

that these forms of light were considered foreign and intrusive initially; indeed, some

continued to classify industrialized light in negative terms when lamenting the loss of

candlelight and wood and coal firesides.

A few touchstones from the history of artificial light help to contextualize how

and why fire – in its multiple forms – was perceived in contradictory terms. The

industrialization of light in nineteenth-century Britain facilitated remarkable cultural

transformations as gas and electricity began to supersede more traditional forms of

firelight. Gaslight, though discovered prior to the nineteenth century, became aligned

with the era's narratives of national and industrial progress. In the early 1800s, factories

began adopting gas lighting to artificially extend daylight hours. This process, which was

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[3] When writing this introduction, Richard Leahy's *Literary Illumination: The Evolution
of Artificial Light in Nineteenth Century Literature* was scheduled for publication in
September 2018 by University of Wales Press.

sometimes perceived as transforming "night into day," continued when gas street lamps first illuminated Pall Mall during an 1807 demonstration. In 1815 Covent Garden incorporated gas lighting for illumination and to attract audiences, a move that inspired a flurry of competing gas installations at other theatres until, in 1818, some patrons complained there was "too much light" (Rees 11). As gas became more cost efficient between 1830 and 1880, installations expanded into middle-class houses and beyond urban centers. The increased reliance on gas flames in public and private spaces, and the growing popularity of electric light in the 1890s, further amplified the relationship between modernity and industrialized light.

Schivelbusch's history of lighting innovations and the subsequent material and psychological transformations that occurred in Britain and Europe reflects the impact of lighting history on temporality, geography, and literature. He begins by crediting Lavoisier's "chemical 'enlightenment'" as the origins of all subsequent inventions in artificial lighting, for "[o]nce the true chemical nature of the flame had been recognised, it could be manipulated in a completely new way and no longer had to be accepted as it had existed since time immemorial" (4). Schivelbusch uses the term "primeval fire" to describe firelight that had remained unchanged until the era of industrialization, defining it as a multipurpose fire used for illumination, heating, and cooking (4). This term and much of Schivelbusch's thinking about pre-industrial firelight are indebted to Gaston Bachelard, a French philosopher known for his work on reverie and the elements. Schivelbusch describes the cultural shifts that occurred as primeval fire became disaggregated into separate functions, focusing on the material shapes of domestic and

public lighting, such as argand lanterns, street lamps, and theatrical lighting, and related transformations, such as the trend of using darker colors in interior decorations and theatrical sets and makeup to contend with the harsher and more brilliant flare of gaslight. Melancholic reflections about modernization and change appear throughout the primary sources cited in each of Schivelbusch's chapters. This sense of ennui, modern in its own right, parallels the processes of innovation that I discuss in terms of media technologies.

Christopher Otter's more finely grained history of illumination resists the teleology in Schivelbusch and other scholars' narratives that imply the transformations from flame to electric bulb were linear, uniform, and a foregone conclusion. Otter demonstrates that various light forms coexisted, that contemporaries complained about poor or faulty gas and electric light installations, that gas networks broke down, and that there were – and are – "idiosyncratic" spaces and networks worth exploring (8). Candles are but one of Otter's examples of antiquated illumination technologies that shone alongside modern, electric light:

> candles were long used routinely, and not just by the poor, spiritualists, or crepuscular decadents like Huysmann's Des Esseintes. Dibdin argued that they were excellent for reading since they were portable and provided soft light and reading required no color discernment. Candles were still recommended for bedside reading by Trotter in 1921. (204)

Otter's resistance to teleological narratives corresponds with similar protests in recent media scholarship, which advocate for more temporally and geographically specific analysis instead of tracing an arc that terminates with the apparently inevitable arrival of cinema. These scholars also resist arguments that characterize outmoded media as important only because they contribute to the subsequent advancement of cinema.

Building from Bolter and Grusin's theory of remediation as a helpful method for resisting such teleologies, my project similarly attends to the forms of light and media that co-existed with so-called "modern" illumination and "new media," and, more specifically, I attend to particular media entertainments that used firelight and that have been previously overlooked.[4]

The cultural history of industrialized light as it relates to optical devices is a subtopic in several scholarly studies invested in nineteenth-century British visual, literary, and media cultures, including monographs by Isobel Armstrong, Lynda Nead, and Kate Flint.[5] The journal issue that I co-edited with Kate Flint for *19: Interdisciplinary Studies in the Long Nineteenth Century* demonstrates how my research has already begun to intervene in these critical conversations. As Isobel Armstrong notes in her afterword, the articles "constitute the beginnings of a coherent poetics of fire for the Victorian period, a narrative of calorifics, to invent a term, moving as they do through aesthetic production, Victorian knowledges, and material culture" ("Fire" 6). My dissertation furthers this goal by demonstrating how the cultural and material history of

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[4] As I have explored in more detail elsewhere, Lynda Nead's interpretation of London's Great Smog of 1952 as an uncanny return of the Victorian past has helped inform my understanding of how Victorian technologies transcend their supposed temporal limitations and persist in the modern era (Sullivan and Flint 2).

[5] See Armstrong's *Victorian Glassworlds*, Nead's *Victorian Babylon* and *The Haunted Gallery*, and Flint's *The Victorians and the Visual Imagination*. Flint has continued her interest in illumination and recently published a cultural history of flash photography titled, *Flash!: Photography, Writing, and Surprising Illumination* (2018). Armstrong and Nead's monographs conclude with the concept of celestial light – made visible through the glassworlds that Armstrong analyzes and, as Nead demonstrates in *The Haunted Gallery*, a conveyor of information and moving images projected through space and time. I engage with celestial light and astrophotography in my second book project, "Exposing Celestial Light in Victorian Photography and Literature."

fire, an apparently ethereal substance, made new sensory perceptions available across forms of print and entertainment media.

Fire and Public Spectacle

One of the main topics of this dissertation is the relationship between firelight and public media spectacles in an era with new anxieties about mass audiences, mass culture, and mass media consumption. As I discuss in the second chapter, my use of the term "mass" culture is not meant in a pejorative sense and it does not signal an unthinking form of consumption. Instead, I build from Patricia Anderson and Nicholas Daly's work and use of the terms "mass" or "mass culture" to refer to the diverse sets of readers and viewers who were able to access more widely disseminated forms of media, both in print and in optical entertainments.[6] Many cultural historians agree that the history of artificial light is inseparable from nineteenth-century industrialization, theatrical entertainments, and spectacular displays. In most histories of artificial light, the introduction of gas lighting to urban street lamps, to factory spaces, and to theaters – as a more powerful form of illumination, as an outward ornament of display, or as a stage lighting effect – resulted in material and symbolic changes that ramified meaning beyond those specific gaslight installations. However, gas illumination did not appear suddenly in the nineteenth century; as both Rees and Schivelbusch remind us, gas dates back to at least the late seventeenth century, and among the earliest accounts are from John Clayton, an amateur chemist, who describes distilling gas from coal, filling an animal's bladder with

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[6] See Anderson's careful definitions of "mass" and "popular" as they have appeared in scholarship, pp. 7-9.

the invisible substance, and then gently squeezing the bladder in front of a candle flame as a way of entertaining his guests.[7] Gaslight and firelight provided forms of entertainment and play, but their ludic and spectacular properties gradually receded from everyday entertainments because flames, whether fueled by wax, oil, or gas, were incorporated into optical devices that mechanized animation.

For art historian Lynda Nead, gas lighting afforded new visual and visceral experiences in nineteenth century London. The threat of gas explosions informs her characterization of the city as "spontaneously combusting, its houses and streets continuously on the verge of falling down or blowing up" (*Victorian Babylon* 94). In addition to its potential for erratic explosions, gas lighting, Nead argues, became aligned with "the rhetoric of display" after it adorned Westminster Bridge in 1805 to commemorate King George III's birthday two years before the Pall Mall demonstration (88). As part of the rhetoric of display, gas lighting fits into the larger history of using lighting in spectacular entertainments and it precipitated shifts in nineteenth century theatrical spaces where lighting innovations directed and controlled audience attention.[8] Various forms of firelight have long been associated with public displays, including eighteenth century pleasure garden entertainments that volleyed fireworks into the air, created illusions with flames and transparencies, and magnified illumination by relying

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[7] John Clayton's letter was written in 1691 and later published in 1739 in *Philosophical Transactions of the Royal Society* (Rees 1; Schivelbusch 15-16).

[8] For a history of nineteenth-century stage lighting techniques, see Nicholas Daly's "Fire on Stage" and Terrence Rees's *Theatre Lighting in the Age of Gas*.

on a staggering number of candles.[9] Early nineteenth century public displays of gas

lighting, however, aligned fire with modernity, scientific innovation, and during that

particular occasion, with spectacular royal fanfare.

Nead's project compliments Otter's attention to historical specificity by analyzing

the particular poetics of gaslight. Drawing on a variety of nineteenth-century materials,

one of Nead's important interventions is that gaslight "does not destroy the night; it

illuminates it" (*Victorian Babylon* 83). Nead defines the poetics of gaslight as a

"chiaroscuro effect, pools of light and darkness" in contrast to electric light that

"annihilates" darkness (83). While Nead resists the narrative of "transforming night into

day," she concedes that daytime and nighttime no longer remained distinct geographical

and temporal spaces because "street lamps represented an intrusion of daytime order and

the rational space" (83). By the 1860s, street lamps had transformed urban spaces into

avenues of unbridled commercial pleasure. No longer visually restricted by the ocular

obscurity of nighttime darkness, shoppers could continue shopping past sunset, reassured

of their safety by the pools of gaslight that lined public thoroughfares while they visually

consumed wares through gas-illuminated windowpanes. Stores remained open to

accommodate the demand, a trend that concerned the Early Closing Movement, created

in 1842, which began collecting a list of women in the 1860s who would volunteer to

abstain from late night shopping so that working hours could be reduced to more humane

limits (*Victorian Babylon* 85, 87). Gas lighting, in other words, illuminated streets, shop

windows, and theaters under a shared rubric of public spectacle and consumption. Other

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[9] See Richard Altick's richly detailed and seminal study of media entertainments, *The Shows of London* (1978).

forms of firelight, including candles and wood- and coal-fueled fireplaces were part of this rubric, but they also had additional valences as earlier forms of light that, when contrasted to the industrial processes required to manufacture and disseminate gas, accrued a nostalgic aura that elided their industrial processes and emphasized their associations with intimacy and creativity.

Remediating Fire

In order to theorize fire as a media technology, I must return to Schivelbusch's pre-history of fire, outline the emerging concept of "elemental media," examine recent developments in scholarship about the Anthropocene, and connect these threads to scholarship in literature and media studies. Schivelbusch's history of industrialized light in the nineteenth century explains that the magic associated with the original, multipurpose fire remained after it was disaggregated into lighting, heating, and cooking as separate functions. This magical aura stems from what he imagines as the ur-history of artificial lighting, which he charts as a series of human discoveries and inventions, including the realization that some wooden logs burns more brightly than others, the use of resin and pitch to enhance the luminosity of wooden torches, and the development of more portable and efficient candles and oil-lamps, which, according to Schivelbusch, remained relatively uniform until industrial factories prompted yet another innovation in the late eighteenth century: the argand lamp (4-11). Schivelbusch incorporated a pre-history of firelight into his study of nineteenth-century devices, and the impulse to chart a

pre-history of elements, including fire, continues in John Durham Peters's *The Marvelous Clouds: Towards a Philosophy of Elemental Media* (2015).

Beginning with the twenty-first century concept of "the cloud," a term that we commonly use when referring to digital data that is stored in unseen locations, Peters expands the media concept from mechanical devices to more elemental forms while also tracing an international evolution of media studies and theory. Clouds, air, water, and fire are central to Peters's philosophy of media that existed prior to civilizations and recorded histories (20). As John Guillory has argued, the logic of remediation means that "premodern arts" are also media, but that they were not originally thought of as such (322). In that vein, Peters recovers the natural world as a form of media. In his words, "[o]ld media rarely die; they just recede into the background and become more ontological" (23). Peters admits that his philosophy of media threatens to become all-encompassing, and notes that one of the questions he hears the most is, "[w]hat…is not a medium?" (4). I have previously argued elsewhere that my research on fire complements Peters's analysis of fire's relationship to human civilization and to media history, and his concept of elemental media has been a productive means of furthering the logic of remediation (Sullivan and Flint 6). My research shares Peters's interest in elemental media, but it focuses specifically on fire as a nineteenth-century British media technology that pre-dated and coexisted with mechanical forms of animation. In doing so, my research offering a helpful way forward for literature and media studies by rethinking the concept of "dead media," which may inadvertently encourage a focus on antiquated objects rather than on outmoded perceptual practices. Fire illuminated and animated

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across print and visual media platforms, which I argue allows us to examine media

production and consumption in a historically specific way while also not feeling beholden

to mechanical objects.

Fire has also become an important element for recent scholarship on the

Anthropocene, which provides a foundation for my historicist approach to the specific

material history of fire as a media technology in nineteenth-century England. For some

scholars of the Anthropocene, fire has become one potential litmus test for registering

global and geological alterations to the Earth as a result of human activity. In other

words, the Anthropocene is a demarcation of geological time that registers evidence of

significant man-made alterations to the Earth's environments, and there are heated

debates about when the Anthropocene officially begins. While some scholars argue that

the 1784 steam engine is the first geological marker of human-caused change on a global,

geological scale, Nigel Clark invites us to look further back to the use of fire in pottery

and metallurgy.[10] Clark's determination that the histories of artisanal fires belong in

scholarly discussions of the Anthropocene offers a foundation for cultural perceptions of

fire as one of the first technologies, evident in its ability to shape clay and melt metal, and

it provides one means of refining Bachelard, Schivelbusch, and Peters' productive but

romanticized accounts of fire as an element that has existed since "time immemorial"

through anthropological and geographical time scales. Victorian scholars who study the

Anthropocene, the environment, and ecologies, such as Allen MacDuffie and Jesse Oak

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[10] See Tobias Menely and Jesse Oak Taylor's introduction to *Anthropocene Reading: Literary History in Geologic Times* for a history of the debate about when the Anthropocene began.

Taylor, have begun to develop the role of fire, thermodynamics, smoke, and ash in nineteenth-century conceptualizations about fuel, energy, production, and consumption.[11] My project theorizes fire as a media technology and articulates how fire-based media technologies shaped affective perceptions and notions of consciousness in the nineteenth century.[12] The developing conversations about fire in Anthropocene and Victorian science scholarship suggest the potential impact for studying fire as a cultural element, artifact, and technology. In the chapters that follow, the specter of the Anthropocene begins to emerge, and it is a line of inquiry that I intend to develop further in the book project, from the preference for inefficient and polluting coal fires over more efficient gas stoves in the fire-gazing chapter, to the 1834 Parliament fire that erupted because of a wasteful expenditure of fuel, and to the terrifying confrontation between humans and subterranean fire that reordered chronological time and that threatened to erase civilization.

The formulation of fire as a media technology, or as part of what Peters would term "elemental media," participates in larger conversations about literature, media technologies, and the imagination. My understanding of the book as an immersive print

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[11] See MacDuffie's *Victorian Literature, Energy, and the Ecological Imagination* and Taylor's *The Sky of Our Manufacture*. In "While the World Burns: Joseph Conrad and the Delayed Decoding of Catastrophe," which is part of *19*'s "Technologies of Fire" issue, Taylor analyzed the burning coal ship in Conrad's "Youth" as a metaphor for global disaster in the Anthropocene.

[12] In the book version of this project, I will continue to research fire in interdisciplinary contexts. For example, Stephen Pyne, a professor in the School of Life Sciences at Arizona State University, studies wild and rural fires, and has examined connections between scientific and cultural discourses of fire in his works, including his book *Fire: Nature and Culture* (Reaktion Books, 2012).

medium that interacts with other media technologies, and my thoughts about how these forms of media foster or inhibit the imagination, is informed by Walter Benjamin's theorizations of childhood reading habits as relatively untrained when compared to adult bourgeois media consumers. Benjamin described old children's books in terms that we would now associate with immersive multi-media experiences. In one of his essays, child readers slip past the boundary of the page, imaginatively immerse themselves in an illustration, and emerge, "[d]raped with colors of every hue that he has picked up from reading and viewing" ("A Glimpse into the World of Children's Books" 226). Not all children's books afford this kind of interaction for Benjamin, and there are differences in the types of illustrations that facilitate this dream-like reverie; his understanding of this process relies on old children's books, not the increasingly mass-produced, highly commercialized, and didactic children's book.[13] The printed page for Benjamin also interacts with more ephemeral and natural forms of media, which he recounts in a personal memory of childhood reading while watching the snow fall, drawing similarities between the printed page and the snowflakes on the windowpane as he sees "in the flurry of letters, the stories that had eluded [him] at the window" (*Berlin Childhood* 59). Benjamin's theory of child readers and print media laid the mental groundwork for me to theorize fire as a media technology, which I began to formulate once I noticed that Charles Dickens's child characters often pictured moving images flickering in their firesides or projected animated visions that flitted from page, to flame, to screen.

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[13] See Walter Benjamin's "Old Forgotten Children's Books" and his transcribed 1929 radio broadcast, "Children's Literature," for more information on how he distinguishes children's books from children's literature and how he theorizes childhood reading and writing practices, including their marginalia.

Ebeneezer Scrooge provides one example of the latter when he witnesses his younger self, "a lonely boy…reading near a feeble fire," conjure a parade of characters from *Arabian Nights* and *Robinson Crusoe* outside the schoolroom window (*Christmas Carol* 58).

Media history and theory, whether focused on devices or elements, fits into larger scholarly conversations about the imagination. For Andrew Piper, the romantic book culture that emerged between the seventeenth and eighteenth centuries in England and in a larger global context made new forms of the imagination possible that were inseparable from the materiality of the book, including what he defines as the "hallucinatory" experience of seeing images as we read and the trance-like state of the distracted reader (2). Piper draws from book history and print culture scholarship to articulate the "history of intermediality in the romantic age" and argues that the romantic book interacted with other forms of media, including oral, manuscript, and print cultures (16). I build from Piper's understanding of the book as a medium by showing how theorizing fire as a media technology lets us rethink the interactions, exchanges, and overlaps between what may appear as distinct materials with separate cultural histories.

Media theory and history often focus on mechanized communication and media entertainment devices and how innovations to both of those branches resulted in new perceptual experiences. In *Gramophone, Film, Typewriter*, Friedrich Kittler examines each of the mechanized objects in his title according to the rubric of the Lacanian real and assesses whether each of the technologies enhances access to the real or creates distance from it. Kittler's psychoanalytic framework is limited, but his analysis still provides a

helpful framework for thinking about how devices enable specific sets of physiognomic and affective experiences. Richard Menke's analysis of Victorian communication systems, which include the postal network and the telegraph, demonstrates how mechanical devices transform language and create or interact with communication networks. Jonathan Crary's *Techniques of the Observer* argues that a perceptual shift occurred between the eighteenth and nineteenth centuries and examines embodied forms of observation. In *Suspensions of Perception*, Crary examines the legacy of that shift in the latter half of the nineteenth century and claims that concerns about attention, attraction, and absorption in Western cultures arose in tandem with a media saturated environment. My dissertation builds from these works by focusing on fire, an element that crosses media platforms, instead of focusing on a set of mechanical devices. Fire is an early media technology that is remediated in print and visual cultures and that later becomes the source of illumination for many mechanized entertainments.

Fire leapt from the hearth and into print media through narrative and iconographic representations, and the oral tradition of fireside storytelling translated into an aural tradition of reading and listening to print media. Dickens understood the symbolic power of imbuing print media with the energetic charge of fire as evidenced by his initial plan to call *Household Words* "The Forge."[14] Fireside idylls were codified in the Victorian imagination through Dickens's works, which were famously read aloud by domestic

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[14] In The Pilgrim Edition of *The Letters of Charles Dickens, 1850-1852*, vol. 6, the editors note that "The Forge" was used in advertisements dated 12 April 1850 for what would become *Household Words*. The advertisement announced that "The Forge" would "enable readers 'to bear the world's rough-cast events to the anvil of courageous duty, and there beat them into shape'" (26).

hearths and public house firesides. Dickens's oeuvre became a part of this print legacy in the late nineteenth-century and early twentieth century with the New York publication of *Fireside Dickens: A Cyclopedia of the Best Thoughts of Charles Dickens* (1883) and with Chapman and Hall's twenty-two-volume edition of *The Fireside Dickens* (1903-07). Both of these print endeavors were meant for reading by the fireside and echoed the folk tradition of oral storytelling; the cyclopedia announced this intention, stating that the curated selections from Dickens's "Best Thoughts" were designed "for Fireside Half-hour readings" (3). Print media further assimilated firelight's media properties when publishing houses remediated the aural tradition of fireside readings into a series of relatively inexpensive "fireside editions." For example, James Burns, a publisher operating out of Manchester Square in the 1840s, advertised a series of books under the imprint "Burns's Fireside Library," which "advertised itself as 'a series of cheap books for popular reading, suited for the fireside, the lending library, the steamboat or the railway carriage'" (Sutherland 94-5). By situating the fireside next to images of travel and consumption, Burns's Fireside Library imagined the hearth as part of a larger network of exchange, and the fireside was activated in the public sphere as a mobile image that could accompany a traveler by water or by rail. The fireside's role in print culture disrupts the perception that domestic fiction encloses and enshrines the private sphere.

Chapter Outline

My first chapter argues that fire-gazing, or fireside reverie, contributed to the formation of a middle-class media consumer. Gaston Bachelard studied fireside reverie in *Psychoanalysis of Fire*, but his account does not historicize the role of fire in the development of media technologies and the imagination. In the Romantic tradition, the fireplace serves as a companion during solitary reflection and also acts as an imaginative dream space. For example, Leigh Hunt considers the fireside as an external aid for reflection in his 1811 essay, "A Day by the Fire." Fire-gazing and fireside reverie are romanticized modes of perception, reflection, and imagination that later fused with industrial means of production and scientific methods of inquiry. Drawing on Michael Faraday's lectures on *The Chemical History of a Candle*, delivered between the late 1840s and early 1860s, I argue that flame is a moving-image technology and recover fire-gazing as an intimate form of viewing and producing moving pictures. The chapter locates latent anxieties about automation, usually associated with late nineteenth-century entertainment and communication media, in early and mid-century accounts of fire-gazing. It culminates in an interpretation of Lizzie Hexam's fireside reverie in Charles Dickens's *Our Mutual Friend* (1864–65), which shows that the fire-gazing scenes in that novel rely on both conscious and unconscious modes of perception to revitalize an individual and more fanciful imagination resistant to purely mechanized entertainments and scientific demystification.

My second chapter examines matches and street lamps as instruments of the imagination and image-making technologies within the larger print and visual culture that

determined their iconographic imagery. As material culture continued to change in tandem with innovations to heat and light, outmoded vehicles for firelight, such as the match and the street lamp, became potent symbols of a pre-industrial imagination despite their own industrial origins. By examining two of Hans Christian Andersen's fairy tales, "The Little Match Girl" and "The Old Street Lamp," both published in England in the mid nineteenth century, this chapter engages with scholarly work on instruments of the imagination and narrative technologies. Images of match girls and street lamps permeated popular literary and visual culture in an era when mechanized devices and theatrical effects found their way into middle class homes as children's toys. Earlier, the magic lantern had soared to popularity in 1830s England in the form of phantasmagorias, or public magic lantern shows that created illusions like ghosts walking on a stage (Castle 36-9). The once captivating public lantern show evolved into a form of popular domestic entertainment, and it became commodified as a children's toy in the 1860s. Andersen imbues matches and street lamps with similar image-making capabilities. As the match, the match girl, and the street lamp became associated with the past, they were remediated as overly sentimentalized figures for children's entertainments. The match as a commodity and the street lamp as a harbinger of modernity offer a way for us to think about media history and the production of a new media consumer without focusing solely on mechanical devices. As Anderson's match girl expires in the snow and as the old street lantern worries about its obsolescence, we can examine how innovations enable and inhibit perceptual practices.

My third chapter argues that the 1834 Houses of Parliament fire inaugurated

modern live-audience disaster spectatorship. The fascination with conflagrations was not

a new phenomenon for nineteenth-century city dwellers: the most famous example, of

course, is the Great Fire of London in 1666, an event frequently invoked in the nineteenth

century when discussing disasters, fireproofing, and building reforms in urban

environments. However, fire disaster narratives in the nineteenth century accreted

specific nationalistic, imperialistic, and classed valences that coincided with an increasing

desire to authentically recreate experiences in various forms of media. On October 16,

1834, large crowds gathered to watch the incineration of the Houses of Lords and

Commons. J. M. W. Turner witnessed the blaze and captured the spectacular light show

in two large oil paintings. Katherine Solender argues that these are not "mere records"

(42), and that Turner's techniques indicate his desire for an immediate and uninterrupted

transference from event, to hand, to canvas, and that this desire "reveal[s] the very

process through which he arrived at an expressive union of experience and imagination"

(11). The blaze, like other fire related disasters, was popularly portrayed in contemporary

dioramas, including Kenny Meadows's "Grad Tableaux, of the Interiors of the Houses of

Lords & Commons" and E. Lambert's show at the Queen's Bazaar (Altick 168, 176).

When reproduced across various other forms of media, including paintings, periodicals,

literary magazines, and dioramas, the 1834 fire became endlessly reenacted across time

and space. In this chapter, I demonstrate how the fire became scripted as a live audience

disaster spectacle after the fact by analyzing nineteenth-century periodicals, Thomas

Hood's 1835 *Comic Annual*, and entertainment media.

My fourth chapter shows that the enduring myth of subterranean fire provided an inexhaustible narrative technology for the real, imaginary, and ideological engines of British imperialism. Despite archaeological and scientific evidence that mud and ash had buried the Roman cities of Herculaneum and Pompeii, Vesuvius's 79AD eruption was central to the Victorian fascination with, and horror of, subterranean fire as an indomitable force, a potential source of fuel and energy for industrial machines, and a source of spectacular entertainment. This chapter analyzes the reanimating potential of subterranean fire as it was represented across print and visual forms of media, ranging from Felicia Hemans's 1828 poem "The Image in Lava" to James Pain's late nineteenth-century pyrodramas or fire-plays: massive outdoor displays of pyrotechnics that dazzled crowds, sometimes numbering in the thousands, throughout the nineteenth century and well into the twentieth century. Lauren Rabinovitz argues that the incipient cinematic qualities of these displays led to their eventual film adaptations (59), whereas Nick Yablon favors understanding the contiguities between pyrodramas, the theater, and melodrama (190). The pyrodrama's emphasis on sensory stimuli and immersion, rather than on a text-based narrative, offer insights into the emerging leisure class's developing media literacies. As Yablon has demonstrated, the shows cut across class divisions because fire-plays relied solely on gesticulations and movement, and did not demand any pre-requisite linguistic, literary, or theatrical knowledge (Yablon 196). This chapter analyzes affective responses to subterranean fire as well as its classed and national valences.

My conclusion picks up the emerging themes of periodization that emerged in each of the preceding chapters by analyzing the 1936 Crystal Palace fire, an event that Winston Churchill described as "the end of an era" (qtd. in Piggott 211). As with the Parliament fire one hundred years earlier, the conflagration drew thousands of spectators to the scene. Building from scholarship that encourages us to more closely examine the Crystal Palace's multiple meanings instead of assuming its symbolism remained unchanged, I argue that the 1936 fire operated as a media spectacle because of intertwined innovations in lighting and media technologies that I traced throughout the previous chapters. The Sydenham Crystal Palace's historical associations with mid nineteenth-century exhibition culture made its fiery end all the more ready for media consumption. The iron and crystal inferno erupted in the twentieth century, well after the widespread adoption of electric light, making the flames more spectacular as a visualization of outmoded light. The abundance of attention this spectacle acquired through photography and new forms of media like newsreel film footage represents a culmination of the mass media consumption that had begun to emerge in the nineteenth century.

Chapter 1
Flame, Page, and Screen: Recovering Fire-Gazing as a Victorian Media Technology

> People gazing at a gaslight no longer lost themselves in dreams of the
> primeval fire; if anything, they were thinking of the gas bill. As a rule,
> though, no one looked at the gas flame any more at all.
> -- Wolfgang Schivelbusch, *Disenchanted Night* (29)

In his impressive cultural history of the industrialization of light, Wolfgang

Schivelbusch briefly narrates the oft-lamented and fatal confrontation between fire-

gazing and artificial light. A form of flame-based reverie, fire-gazing typically involves a

solitary viewer who perceives animated, moving images dissolving into and out of view

in a wood or coal fire. The flames may suggest arbitrary pictures, reveal fantastic

landscapes, or trace more familiar forms, such as the faces of friends and family. While

fire-gazing remained a popular trope of the imagination in nineteenth-century British

literature, the adoption of gas lighting in domestic spaces between 1830 and 1880

rendered the actual practice of fire-gazing increasingly obsolete. Gas offered a more

economical form of heat and illumination, but the heightened luminosity of gas flames

proved too harsh for fire-gazing, and the emerging popularity of electric light in the

1890s further diminished the need for flame-based light.[1] Accounts dating back to

Ancient Greece and Rome identify fire-gazing as a technique for divination, but in

nineteenth-century England, fire-gazing represented a nostalgic return to a pre-industrial

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[1] Though early estimates of luminosity and incandescence were imprecise, gas was often
characterized as providing brighter, clearer, and more affordable light. For a history of
photometry (the scientific measurement of light) and shifting attitudes towards gas and
electric light, see Otter's *The Victorian Eye*.

imagination.[2] However, more than just a romanticized symbol, fire-gazing is an early and individualized moving-image technology that persists in print despite the industrialization of light and the proliferation of mechanized animation technologies.

Flames exist on a continuum with other nineteenth-century animation technologies and were often incorporated into those proto-cinematic entertainments as either the fuel or the subject. For instance, early iterations of magic lanterns relied on the flickering movement of flames to simulate motion while projecting painted images from glass slides onto a stage or screen. Public magic lantern shows, or phantasmagorias, paraded reanimated ghosts on British stages as early as 1801 (Castle 37). Though the industrialization of light eliminated fire-gazing, it enabled concurrent developments in animation technologies and optical devices by providing stronger sources of light that could project images across greater distances or produce more convincing illusions. Richard Altick correlates the 1782 invention of the Argand lamp with the magic lantern's popularity after the 1770s (117), and an 1866 instructional guide narrated by "a mere phantom," *The Magic Lantern: How to Buy, and How to Use It: Also How to Raise a Ghost*, explains why different types of light sources are required for different types of magic lanterns. When projecting an image in a "lecture-room where a disc [the projected image] of twenty or perhaps thirty feet is necessary, some means of producing a more brilliant light must be adopted" (25–26). In that particular instance, the guide recommends "oxycalcium and oxyhydrogen lime-lights" (26), but it also has instructions for other types of light, including oil and a few types of gas. By the late nineteenth

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[2] For the role of fire-gazing in ancient divination, see Sarah Iles Johnston, "Charming Children: The Use of the Child in Ancient Divination."

century, the incandescent beam of light that projected moving images became synonymous with animation, as if light alone could transform still images into stuttering motion.[3] But I want to redirect our attention from the animated, moving images on the stage or screen to their luminous source. This chapter argues that flame itself is an animated, moving-image technology, and that fire-gazing must be included in the history of animation technologies as an outmoded yet more intimate form of perceiving and producing moving images.

Recent scholarship has shown how the apparent distinctions between mechanical copying and "high art" were less confidently drawn following late nineteenth-century inventions that enabled automatism and mass reproducibility, but the conscious and unconscious modes of perception involved in fire-gazing locate latent expressions of these anxieties earlier in the nineteenth century.[4] These concerns appear in literary depictions of fire-gazing that invoke two dueling nineteenth-century notions: that fire-gazing is a heat-induced trance and form of unconscious reverie, or that it involves both conscious and involuntary processes, the coordination of which testify to the ingenuity of the viewer. In demonstrating the continuities between flames, fire-gazing, print media, and mechanized moving-image technologies, this chapter traces shifting ideas about the imagination in an industrialized era. After reviewing why an analysis of fire-gazing requires a joint literary and media history approach, I turn to Michael Faraday's

[3] For Nead's excellent discussion of the iconography of the beam of light and its relationship to animation, see *The Haunted Gallery*, pp. 233–44.

[4] For one example of this scholarly work, see Lisa Gitelman's discussion of automatic writing in *Scripts, Grooves, and Writing Machines: Representing Technology in the Edison Era*.

theorization of flame as a moving image in the mid-nineteenth century. Then, I look

further back to Leigh Hunt's early nineteenth-century essay "A Day by the Fire" (1811)

to demonstrate connections between fire-gazing, the imagination, and writing. The final

section argues that the preoccupation with fire, bodily reanimation, and fire-gazing in

Our Mutual Friend (1864-65) presents the imagination as a necessary and humanizing

force in an industrial and media saturated era, and I analyze scenes of fireside

(re)animation, including those featuring one of Dickens's more famous fire-gazers, Lizzie

Hexam, to show how Dickens revitalizes, in print, a form of media literacy otherwise

extinguished by the emergence of industrialized light.

Flames and Media Archaeology

My methods and purposes for recovering fire-gazing as a moving-image

technology share a kinship with "media archaeologists [who] have begun to construct

alternate histories of suppressed, neglected, and forgotten media that do not point

teleologically to the present media-cultural condition as their 'perfection'" (Huhtamo and

Parikka 3). Rather than extracting fire-gazing from layers of literary sedimentation, I

show how the shared media histories of print and fire preserve a subjective method of

producing moving images that interacts with more standardized and mechanized

entertainments. As I discussed in the introduction to the dissertation, Jay David Bolter

and Richard Grusin's theory of remediation, a process in which both old and new forms

of media borrow from and refashion one another, has proven fruitful for both literary and

media scholars (5). Helen Groth, for example, has analyzed nineteenth-century "inter-

medial" reading practices that developed through a shared consumption of visual and textual materials in order to demonstrate how "images move both inside and outside the mind" (3-2). Following the logic of remediation, John Guillory explains that the definition of "media" must also include "premodern arts" because they are later incorporated into modern media technologies (322), a chain of reasoning that Peters's concept of "elemental media" and my theorization of fire as a media technology support and extend. Susan Zieger's analysis of ink-gazing demonstrates the importance of recovering non-mechanical ephemeral media technologies, showing how the pools of ink used for scrying, or for materializing otherwise immaterial thoughts and images, are part of an emergent nineteenth century screen culture "onto which the mind cast its images" (101). Building from these works, I contend that literary representations of fire-gazing constitute an act of remediation and that fire is a missing element in cultural histories of nineteenth-century moving-image technologies. Since wood and coal fires crackle, flicker, and smoke while emitting heat and light, nineteenth-century accounts of fire-gazing let us examine a multisensory, and consequentially highly individualized, form of animation within the shared contexts of literary and media histories.

Analyzing fire-gazing through literary remediations is necessary due to the ephemeral nature of flames and because both fire-gazing and literature are imbricated in nineteenth-century conceptualizations of the imagination. Scholars such as Isobel Armstrong, Jonathan Crary, Kate Flint, and Tom Gunning have shown that the materials and processes of industrialization enabled new ways of seeing, which, in turn, modified imaginations and reinforced associations between vision, light, and the production of

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knowledge.[5] As sophisticated, mechanized moving images and strong sources of

"artificial" light began to characterize the experience of modernity, fire-gazing became

associated with childlike, unconventional, and unscripted modes of seeing. In 1904

pioneering psychologist and theorist of child development Granville Stanley Hall praised

"the charm of fire-gazing [because it] is a great school of the plastic imagination" (2:

188). Responding to his media-saturated environment, Hall continues:

> Here, for once, children in our over-illuminated age and land escaped the
> pedagogic grafters and put forth a fresh, vigorous, wild shoot that is
> indigenous and expresses their own soul and does not merely reflect what
> adults have put into it. Better yet, each makes his own Jack Frost, and he is
> still plastic, unconventionalized, ununiformitized, and unstandardized. (2:
> 188)

For Hall, fire-gazing should be celebrated as an extension of a primitive, organic, and

untamed imagination that allows children to generate autonomous moving images

unshaped by pre-existing templates. Yet not all representations of childhood fire-gazing

invoke the plastic imagination, as seen in Asa Briggs's analysis of an 1870 children's

book, in which an animated lump of coal lectures attentive children on its scientific

properties and importance to British industry.[6] In that case, the didactic mode of the

children's book presses an otherwise fantastical moving-image technology into service as

both education and entertainment.

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[5] See Isobel Armstrong, *Victorian Glassworlds: Glass Culture and the Imagination,
1830–1880*; Jonathan Crary, *Techniques of the Observer: On Vision and Modernity in the
Nineteenth Century* and *Suspensions of Perception: Attention, Spectacle, and Modern
Culture*; and Kate Flint, *The Victorians and the Visual Imagination*. Tom Gunning is
cited below.

[6] For Asa Briggs's analysis of *The Wonders of Common Things* (1870) by Annie Carey,
see *Victorian Things*, pp. 295–97.

The nostalgic connotations of fire-gazing were not always viewed, though, in such a positive light. Moreover, the link between fire-gazing and children sometimes provided a means of castigating fire-gazers as infantile and uncivilized. As one late nineteenth-century writer of popular science scoffed, fire-gazing was "the favorite recreation of idiots" (Williams 236). Citing the exorbitant consumption of coal and the resulting soot that "begrime[s] our towns" and damages health, the writer argues that only the "self-delusion" of a "fire-worshipper" would imbue a fireside with the perceived charms of warmth, comfort, and "cheerfulness" (236). Modern efficient stoves, he continues, threaten the childish "fire-worshipper" who is reluctant to forfeit "his playthings, as neither poker, tongs, nor coal-scuttle are included in the furniture of an apartment thus heated" (239). Whether championed or condemned, the varying inflections of fire-gazing as frivolous pastime, didactic instrument, or playground for the plastic imagination reflect a larger concern about the fate of the imagination in an industrialized age saturated by prefabricated images. This concern manifests itself in literature because, as we will see, there is a long-standing association between fire-gazing and literary invention.

The positive perceptions of fire-gazing as an unstandardized and creative practice rely on an inherent understanding of flame itself as a moving image. Michael Faraday theorized flame as an animated moving image in *The Chemical History of a Candle*, a series of lectures delivered at the Royal Institution between the late 1840s and early 1860s. *Household Words* dramatized the immensely popular lectures in 1850, and

Faraday's readership grew even further when he published them in 1861.[7] With the

predominantly juvenile audience of the lecture hall in mind, and in want of a dramatic

practical demonstration, Faraday recreates a game of snapdragon, a popular parlor game

that involved lighting a bowl or dish of brandy on fire. Faraday instructs:

> You must not imagine, because you see these tongues all at once, that the
> flame is of this particular shape. […] It consists of a multitude of different
> shapes, succeeding each other so fast that the eye is only able to take
> cognizance of them all at once. (37)

Fig. 1.1, Michael Faraday, "Analysis of Flame," in *Course of Six Lectures on the
Chemical History of a Candle*, ed. by William Crookes (London: Griffin, Bohn,
1861), p. 29. RB 704819. The Huntington Library, San Marino, California.

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[7] See Percival Leigh, "The Chemistry of a Candle," *Household Words*, 3 Aug. 1850, pp.
439–44. For additional information about the history of these lectures, refer to the 2011
Oxford University Press edition of *The Chemical History of a Candle* intr. by Frank A. J.
L. James.

Faraday depicts the multiple flickering shapes that the eye mistakenly perceives as a cohesive flame. "The different parts […]," Faraday explains, "do not occur all at once; it is only because we see these shapes in such rapid succession that they seem to us to exist all at one time" (37–38).

Faraday's analysis of flame invokes the persistence of vision, the illusion of a cohesive moving image produced by the rapid succession of still images (see fig. 1.1). Persistence of vision remains a necessary component of any moving-image technology, including film. As Lynda Nead reminds us, "the central paradox of film is that there is no movement on the screen, only a succession of stationary images" (*Haunted Gallery* 22). The phenomenon fascinated nineteenth-century viewers who delighted in newly available methods for observing moving images, ranging from relatively simple optical toys to the panoramic landscapes of railway travel.[8] Faraday's disarticulation of flame displays his skill as a viewer and demystifies the persistence of vision for his audience without naming it as such. Given the intrinsic flickering motion of flames, and that flame itself is an illusory composite image, I argue that fire-gazing is an early animation technology that trained viewers to perceive the combination of multiple shapes into apparently seamless moving images, and that flames and fire-gazing exist on a continuum with other moving-image technologies.

Tom Gunning's remarkable study of the persistence of vision and the "technological image" locates the origins of Victorian cinema in nineteenth-century optical toys such as the thaumatrope ("Hand and Eye" 499). His argument helpfully

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[8] Lynda Nead analyzes what she terms "velocities of the image," ranging from mutoscopes to railway travel and speeding cars in *The Haunted Gallery*.

resists the frequent association between automatism and the consumption of animated

images by emphasizing the interactive production required of the technological image,

and I linger on that interaction here to demonstrate how fire-gazing further refines the

archive of moving-image technologies. The term "technological image" applies to

"images produced by technological means" and to "images that owe their existence to a

device and are optically *produced* by it rather than simply reproduced" (499, 500,

emphasis in original). For instance, the thaumatrope, first invented in the 1820s, is a

paper disc affixed to a string with two images, one on each side. When operating a

thaumatrope, a viewer must twist the string between their fingers, flicking the paper disc

quickly from one side to the next and back again. As Gunning explains, the alternating

images leave temporary impressions on the viewer's retina, allowing the images to

combine in the eye through a dual process: the conscious, physical manipulation of the

toy at the optimal speed, and the unconscious, involuntary processing of visual

information. The repeating after-images culminate in the persistence of vision, which is

"more frequently referred to today as 'flicker fusion,'" a term that I find even more

appropriately suited for the medium of fire (499).

　　As with the "cooperation of hand and eye" required to produce the technological

image ("Hand and Eye" 507), fire-gazing requires conscious and unconscious actions,

and the resulting flicker fusion of shapes and pictures in the flames provides a more

intimate form of media production and consumption. Of course, degrees of

personalization and subversion were possible for the technological image. Viewers could

create their own thaumatropes, for example, and generate visual illusions as varied as

their artistic abilities and knack for visual tricks and puns. But if a viewer operates a thaumatrope correctly, the images will fuse in a predictable combination. Compared to the prefabricated limitations of the technological image, the flicker fusion of flames and fire-gazing creates infinite shapes and pictures. Moreover, flames cannot be mass-produced and pre-packaged for commercial distribution and consumption. Fire-gazing was an ephemeral and highly individualized experience with moving images that depended on the skill of the viewer, the type and quantity of kindling, the rate of combustion, and other varying conditions. In fire-gazing, the source of the image may be more mystifying than that of the technological image, invoking the divine or the unconscious, but it also facilitates a more personal form of associative production between spectator and image. This is part of the reason why fire-gazing was often depicted as a nostalgic symbol of a pre-industrial imagination: its more playful and individualized form of media represented an alternative to the prefabricated and standardized content of machine-produced moving images. As such, fire-gazing offers an opportunity to further refine the perceptions of automatism and imagination in scholarly studies of nineteenth-century literature and moving-image technologies.

The Fireside and Stirring the Fire

The imagination is often associated with the fireside in nineteenth-century literature and in later literary criticism. To provide just two examples of the latter, Robert L. Patten argues that Dickens imbues the domestic fireplace with Romantic conceptualizations of Nature as a transformative, rejuvenative, and imaginative space, a

claim that builds from Alexander Welsh's theorization of the fireplace in Dickens's novels as an "antithesis" to the deadening effects of the city (Patten 169; Welsh 141-142). Mid- to late-nineteenth century literary portrayals of the fireplace often adhere to these symbolic formulations, but the fireplace is also subject to industrialization and modernization. In Jane Austen's *Northanger Abbey* (1818), for example, Catherine Morland expects to find an old fireplace in the Tilneys' home that will help fuel her gothic imagination, but instead she finds a modernized fireplace designed by Rumford, one of a litany of architectural renovations that initially impede her fancies from taking flight (Austen 153). Count Rumford, a loyalist living in America, published "An Essay on Chimney Fire-Places, with Proposals for Improving Them, to Save Fuel; to render Dwelling-Houses more comfortable and salubrious, and effectually to prevent chimneys from smoking" in 1796, but according to Asa Briggs fireplaces were not widely "Rumfordized," or modernized, until the middle of the nineteenth century (237-238). This chapter traces, in part, the history of associating the fireplace with the imagination in the nineteenth century, avoiding ahistorical perceptions while also acknowledging that nineteenth-century literature often elided historical specificities in order to demonstrate how fire-gazing, print media, and the imagination became enmeshed in each other's histories.

The connection between domestic fires, fire-gazing, reading, and writing that became formalized through literary tropes draws on the frequent conflation of fire and poetic genius, poker and pen. For instance, William Cowper's fire poker, made famous by his much beloved poem "The Winter Evening" in Book IV of *The Task* (1785), was

bequeathed to the Bucks Archaeological Society in 1869, and an 1888 essay on the

history of fire-irons and fenders credits Jonathan Swift with the first reference to fire

pokers in literature.[9] However, the earliest example I can find that imbricates flame and

print as technologies of contemplation, reading, and writing is from Charles Valentine Le

Grice's 1794 essay, "Estianomy, or the Art of Stirring a Fire," the self-proclaimed

"cream" of *The Tineum*, a small book that also contains a mock-heroic poem, epigrams,

and fragments, which Le Grice published and circulated while studying at Cambridge.

Despite the satirical form and content of "Estianomy," which rests on the overstated

importance of the mundane task of stirring the fire, its rules are reprinted without citation

in nineteenth century periodicals. Though "Estianomy" may appear of little consequence,

it was part of the literary culture at Cambridge.[10] Samuel Taylor Coleridge, for instance,

quipped in a letter to Robert Southey:

> Le Grice has jumbled together all the quaint stupidity he ever wrote,
> amounting to about thirty pages, and published it in a book about the size
> and dimensions of children's twopenny books. The dedication is pretty.
> He calls the publication 'Tineum;' for what reason or with what meaning
> would give Madame Sphinx a complete victory of Oedipus. (111)

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[9] Thomas Wright mentions this donation in *The Town of Cowper* (1886), p. 6. His later work, *The Life of William Cowper* (1892), includes a photograph of Cowper's unusual poker, p. 422.See Sylvester Dowling's "Fire-Irons and Fenders" in *Frank Leslie's Sunday Magazine* (1888), p. 363. Dowling most likely refers to Jonathan Swift's *Directions to Servants* (1745), which includes satirical instructions for stirring the fire and for putting out candles.

[10] The following periodicals reprint Le Grice's rules without attribution: Frederick Accum's *Practical Treatise on Gas Light* (1815); "Cautions as to Making and Stirring Fires" in *The European Magazine, and London Review* (1816); and "On Combustion" in *Guernesy and Jersey Magazine* (1836). Le Grice and *The Tineum* are also referenced in the 1892 *Dictionary of National Biography* (1892), p. 423.

"Estianomy" is a satirical treatise that offers maxims extending beyond the rote practice of fireside maintenance to edicts for an artful, skilled, and tasteful life. Tongue-in-cheek, the preface to the *Tineum* gently chides the inattentive "Gentle Bookseller's window peruser": "Do not dip into the first part of this bookling, skim the cream of it, and walk out of the Shop without buying it" (Le Grice A2). Such inattentive browsing, Le Grice claims, would not only cheat the bookseller and author, but the peruser himself. In a move that prefigures concerns about new media technologies that create distracted an inattentive audiences, Le Grice advocates on behalf of re-reading, or sustained attention to print media, for estianomy's rules "require accurate attention, and ought to be deeply imprinted in the memory. Therefore buy it; - and may the festal fires of the ensuing Christmas *roar* approbation of your newly acquired skill" (A2). In a preemptive defense against distraction and mechanized actions, discourses that will later be associated with the appearance of trance-like fireside reverie, these admonishing lines claim that focused attention, when combined with the implied re-reading of the tract, will "imprint" the rules onto the person's memory and, more importantly, will translate into a newly acquired art form.

Le Grice borrows from scientific discourse to outline the rules of fireside maintenance while remaining somewhat elusive about what transforms mechanics into art. For example, following a "postulatum" that poking a fire is useful because it creates a vacuum for air to rush into (14), Le Grice lists the nine cardinal rules of estianomy, which include never stirring the fire after "fresh coals are laid on," "[a]lways keep[ing] the bottom bar clear," and "[n]ever begin[ning] to stir at [the] top" (15). Lest an acolyte

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mistake following these rules with mastery, Le Grice states that these rules only instruct one "how to stir, and keep up a *common* fire" (16, my emphasis). He differentiates between "the rudiments of science" and "niceties in the art, which an innate, elegant taste only can distinguish; and there are sublimities, to which only a natural genius, guided by judgment, and nursed by experience can arrive…." (16). While he does concede "labour and diligence can overcome the greatest of obstacles" (17), his classed assumptions about taste and skill modulate the promise of the preface that rote memorization and dutiful practice will impart a new skill to the reader. "Estianomy" concludes with a rousing call to action, exhorting its readers to preserve the art of stirring the fire as a legacy of the Roman Empire against an automated future stating, "the time will soon arrive, when you will enjoy a fire, which will be preserved without art, where no pokers will ever be required" (21-22). For Le Grice, the art of stirring the fire is a matter of personal skill, national pride, and imperial prowess. When the rules of "Estianomy" are reprinted in early nineteenth century periodicals, or when they are refracted in essays like Leigh Hunt's "A Day by the Fire," we can see that the anxieties about mechanical copying and originality do not belong exclusively to the latter half of the nineteenth century and that the competing perceptions of fire-gazing as an automated trance or as an artful practice are part of a longer history of an emergent modern media consumer and producer.

Fireside Reverie

The material and immaterial qualities of fire made it a perfect catalyst for, and symbol of, imperceptible mental processes like reflection and imagination, which Leigh

Hunt foregrounds in his 1811 essay "A Day by the Fire." The essay describes the daily habits of a figure called "the Firesider," a consummate fire-gazer who, despite his apparent idleness, actively produces and records pictures in the fire. In 1870 an editor of Hunt's essays noted the thematic similarity to "Estianomy, or the Art of Stirring a Fire," which he footnotes as a 1794 essay by "Charles Lamb's friend and school-mate, Le Grice."[11] In the previous section, we saw how "Estianomy" offers a satirical set of maxims for stirring the fire that distinguishes mechanical repetition from supposedly inherent artistic abilities, a framework that Hunt builds from when he forges connections between the external materials involved in fire-gazing, the Firesider's interior creative faculties, and literary history. Although the reader never sees Hunt feverishly transcribe the images he perceives while fire-gazing, excerpts from Coleridge, Cowper, Shakespeare, and Milton punctuate the descriptions of his daily obligations. These literary touchstones and Hunt's evocative prose describe fire-gazing as a moving-image technology that is inextricable from reading and writing. The connection between interior acts of reflection and the external material of flames attempts to articulate imperceptible mental processes, such as thinking, reading, writing, and dreaming. However, similar to Le Grice's instructions for stirring the fire, Hunt's essay inadvertently describes both fire-gazing and literary invention as mechanically reproducible disciplines, and an uneasy relationship emerges between mechanical copying and creative practice.

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[11] See *A Day by the Fire; and Other Papers, Hitherto Uncollected*, edited by Joseph Edward Babson (1870), p. 14. "A Day by the Fire" is sometimes mistakenly attributed to William Hazlitt because the essay appeared in Hunt and Hazlitt's collection of essays, *Round the Table*, first published in the *Examiner* between 1815 and 1817. However, Babson helpfully clarifies that "A Day by the Fire" first appeared in the *Reflector* with "Hunt's well-known signature": a manicule (42).

Hunt presents fire-gazing as a multisensory activity that requires mental and physical dexterity, which resists later characterizations of fire-gazing as an idle, artless, and childish activity. This portrayal satirically champions the Firesider's apparent idleness and recasts gazing into the fire as a valuable form of productivity. As a self-identified Firesider, Hunt writes, "it is part of my business to look about for helps to reflection; and, for this reason, among many others, I indulge myself in keeping a good fire from morning till night" (15). The flames aid reflection, but the Firesider must also possess innate abilities to monitor the fire and to manipulate the poker, an "awful, but at the same time artless, weapon" (14). As with Gunning's description of the thaumatrope, Hunt's fire-gazer must marshal hand, eye, and mind to operate the poker and produce the illusion. However, unlike the technological image, the resulting flicker fusion is unpredictable and requires more artistry than mere mechanical activation, for only the "care and kindliness of the [poker's] operator" will excite the flames and activate the imagination (14). By emphasizing the ephemeral qualities of care and kindliness, Hunt mobilizes haptic, visual, and kinetic sensory experiences that require the conscious, embodied coordination of hand, eye, and imagination to produce, paradoxically, an otherwise dreamlike and hallucinatory display of moving images.

Hunt further distinguishes the conscious and unconscious skills of the Firesider who must "pay […] critical attention to the fireside" (18). Using both voluntary and involuntary modes of perception means that "nothing escapes the eye and the imagination" (29). The eye, a biological sensory organ, and the imagination, an imperceptible mental action, work in unison to register every movement of the flame that

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"swells," "curls," and "darts" around the grate (29, 30). The pictures that appear in the flames flit between real and fantastical topographies, such as "the shifting forms of hills and vales and gulfs" and the incredible image of "fiery Alps" (30). However, the Firesider's "critical attention" then gives way to a more absorptive and less conscious mode of viewing as "heat and fire are forgotten, and walled towns appear" (30). The flames offer an impossible extension of human sight that traverses space and time, even travelling to "far-distant countries scarcely to be reached by human journey" (30). The images dissolve into and out of focus due to involuntary actions in the eye, and Hunt acknowledges a further lack of control, claiming that the flames "combine every shape and suggest every fancy, till at last, the ragged coals tumbl[e] together, [and] reduce the vision to chaos" (30). Unlike the technological image that is predicated upon a predetermined end point, fire-gazing produces pictures as chaotic as the coal-fuelled fire that shifts, combusts, and expires.

Hunt refuses to completely relinquish the reins of the multisensory spectacle as he narrates the collaborative interplay between body, mind, and flame. The Firesider's gaze slips past the pictures in the fire, which Hunt describes as "creations of the eye," and into abstractions: "thought roves about into a hundred abstractions, some of them suggested by the fire, some of them suggested by that suggestion, some of them arising from the general sensation of comfort and composure" (30). Hunt acknowledges that the fire is responsible for suggesting some thoughts while others arise in ways that mimic the associative processes of thinking and reflection, placing additional agency back into the hands and mind of the Firesider. Hunt does not ignore the unconscious or involuntary

facets of fire-gazing, but his descriptions also harness the Firesider's sensory perceptions as creative conduits participating in a relay between mind, body, and fire. Hunt does not characterize fire-gazing as an unequivocal evacuation of the body, an absent-minded gazing, or a purely passive reception of dreamlike images. Instead, in Hunt's essay we find fire-gazing portrayed as a media technology that requires both automation and volition.

Hunt links fire-gazing with writing by creating a genealogy of Firesiders, but in doing so he exposes latent anxieties about mechanical reproduction. Hunt describes the Firesider's ideal posture: seated directly before the fire, reclined, with feet set apart on the fender and eyes cast downwards. This position coordinates the intellect and the senses as the Firesider rests

> his arms on the chair's elbows, one hand hanging down, and the palm of the other turned up and presented to the fire, — not to keep it from him, for there is no glare or scorch about it, but to intercept and have a more kindly feel of its genial warmth. It is thus that the greatest and wisest of mankind have sat and meditated; a homely truism, perhaps, but such a one as we are apt enough to forget. (28)

The proffered hand is an invitation and an entreaty, a tactile extension of the eye mediating the distance between the Firesider's imagination and the fire. The hand intercepts the fire's heat and light, transferring the "genial warmth" more immediately to the Firesider's eye and mind, and the shared pose creates a genealogy of scopic pleasures as well as a shared affective history of tactility and meditation. By aligning fire-gazing and writing, Hunt demonstrates that both activities are part unconscious, inexplicable, unquantifiable inspiration and part careful, studied, practiced art form. Hunt makes classed assumptions about the Firesider's innate skills and sensibilities, but "A Day by

the Fire" also doubles unintentionally as a set of instructions that any reader could replicate indiscriminately and possibly achieve similar outcomes. An 1817 article in the *Literary Gazette* deflects the anxious relationships emerging between fire-gazing, creativity, and mechanical reproduction by highlighting the artist's prerequisite "state of improved perception" that can "give a local form, a character and name" to otherwise arbitrary "shapes in the fire, a stained wall, or any thing of a like nature" ("The Fine Arts" 120). Still, the potential for imitation exposes latent anxieties about the mechanization of the mind and body that are more frequently associated with later forms of communication and entertainment technologies.

In 1884, an article in *Blackwood's Edinburgh Magazine*, "Figures in the Fire," realizes these anxieties about mechanization and mass production when the author, William George Hamley, describes the intertwined processes of fire-gazing and writing in an unromanticized, methodical fashion.[12] Seeking refuge from the winter weather and mimicking the language of scientific observation, Hamley sits by the fire and narrates his plan to "turn discomfort to commodity, and take note of the bodily and mental process of recovering an agreeable temperature. The result has been," he says, "not any addition to physiological science, but this discursive paper which I am beginning to write" (Hamley 46). He finds that the warmth "did not soothe or lull" him; instead it "induced an irritability of body and an unpleasant activity of mind" (46). Disproving Hunt's assertion that fire-gazing requires "care and kindliness," Hamley insists that a "quantity of thoughts…came in unbidden" (46). The images he perceives in the fire catalyze an

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[12] The Wellesley Index attributes authorship to William George Hamley.

apparently unmotivated stream of consciousness. Breaking down fire-gazing into distinct

stages of the warming process and the concurrent mental symptoms, Hamley pauses

occasionally to record his observations and the resulting pictures. In the first stage, a

tumult of ideas appears, but as the body warms, the ideas cool, suggesting that the fire

kindles thoughts directly before the body even registers the fire's warmth. In the second

stage, ideas appear, but they "drag slowly" and lose their impression (46). During the

third stage, "a delightful glow steals over" him, and his "ideas become exceedingly

sluggish and dull" (46). Describing this languid state, Hamley confesses that he has a

"desire to ponder" but no "material for the process" (46). Apparently untroubled by his

lack of ingenuity, he writes, "to such a blank state am I reduced that I peer into the coals,

which are now more fantastic than my mind is, to see if haply they have a suggestion

worth accepting" (46). The only collaboration evident here is the fire-gazer's ability to

accept or reject what the fire produces. Yet, rather than lamenting his self-admittedly dull

wits, he proceeds to gaze at the "more fantastic" coals and to transcribe the images

directly into text.[13] Arbitrary and uninspired, the pictures range from the image of a

hanging man to teacups (46–47, 52). After the first of these images appears, he refers to it

as "the principal figure in my fire-piece" and pronounces himself a "fire-artist" (47).

"Figures in the Fire" presents fire-gazing and writing as mechanized processes so easily

reproducible that even an amateur viewer can convert pictures in the fire into a narrative

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[13] Rudyard Kipling's 1902 short story "Wireless" dramatizes a similarly cynical scene of automatic writing, in which a convergence of environmental factors and a wireless radio experiment allow a chemist's assistant to produce fragments of "The Eve of St Agnes" as if he, and not John Keats, were the original poet. For a fascinating analysis of automatic writing in Kipling's story, see Richard Menke, *Telegraphic Realism: Victorian Fiction and Other Information Systems*, pp. 217–48.

"commodity" (46). Hunt and Hamley represent two extreme perspectives on fire-gazing — a romanticized filament of the imagination or a vacuous activity — but both reveal an understanding of fire-gazing as a technology of the moving image.

Fireside (Re)animation

Nestled in the heart of the domestic space and a reminder of rustic traditions, the Victorian fireside provided a sentimental refuge from the inhuman and alienating processes of industrialization. In a passage from John Ruskin's famous 1850 essay, "The Nature of the Gothic," for example, he condemns the cruel effects of ten-hour days on industrial laborers, stating that the desire for mechanical precision from a human laborer must consequentially "unhumanize" him, thus transforming the human body into an extension of factory machinery (161). However, he identifies one remedy for the laborer's body, and by extension his spirit and intellect, claiming that the human "Heart…cannot go into the forms of cogs and compasses, but expands, after the ten hours are over, into fireside humanity" (162). Ruskin imagines the heart, the animating force of the human spirit, as a spark that the hearth rekindles into a blaze. For Ruskin, the fireside can restore the human spirit and transform a laboring, mechanized body back into flesh and blood. The anti-industrialism fervor of Ruskin's "fireside humanity" underscores the Victorian sanctification of the hearth as an extension of the human spirit, and it also hints at the connections between fireside reverie and bodily reanimation that appear in Dickens's *Our Mutual Friend*.

To say that the revitalizing energies of the Victorian fireside are central to Charles Dickens's works is an understatement; there is no Dickens without the fireside. Across Dickens's *oeuvre*, the fireside often measures how characters embody warmth, kinship, and energy. Dickens's descriptions of the fireside's revivifying properties reside in fire's earlier, traditional role as a source of light, heat, *and* cooking, because multi-purpose fires sustained life by fueling both body and spirit. As stoves and gas lighting superseded wood and coal fires between 1830 and 1880, Dickens's fireside scenes accrued additional nostalgic value. Coal sustained British industrialism, but Dickens recuperated the material's industrial energies to revitalize the human spirit. We see this clearly in *A Christmas Carol* (1843) when Scrooge finally provides more than just one lump of coal for Bob Cratchit's office fire (116). As I discuss below, Adelene Buckland has shown that the amount of coal consumed by Dickens's characters often exceeds their socio-economic realities, but Buckland and I both find that Dickens chose coal as a metaphor for the generosity of the human spirit despite its material costs. Dickens knew about these restrictions, but saw the potential for domestic spaces to inflect public, commercial, and industrial spaces with humanity and conviviality through the shared materials and energies of firelight. The fireside's mid-nineteenth century role in rekindling the human spark became especially important for the coal-fueled fireside in *Our Mutual Friend*, which was already outmoded by the widespread availability of gas. *Our Mutual Friend* uses an anachronistic fireside to echo the symbolic role of fire in Dickens's earlier works, but it departs from the other novels by also directly linking media literacies with physical reanimation.

Two years before John Harmon haunted the pages of *Our Mutual Friend* (1864–65) as a "living-dead man," another Dickensian ghost debuted on stage at the Royal Polytechnic Institution (*Our Mutual Friend* 367). Dr. Pepper's immensely popular magic lantern adaptation of the 1848 Christmas novella, *The Haunted Man and the Ghost's Bargain*, fascinated and educated audiences. Consisting of a public reading and visual spectacle, the multimedia performance ran parallel to the serialized installments of *Our Mutual Friend*. In her analysis of inter-medial literacy, Helen Groth shows that Pepper counted on his audience's familiarity with Dickens's *Haunted Man* and that he incorporated additional readings in 1863 to provide a narrative frame for the technologically produced specter (117-118).[14] Pepper's audience, then, would have remembered the novel's fire-gazing scenes, illustrated by John Leech and John Tenniel, that preceded the ghostly apparition. The ability for audiences to consume Dickensian ghosts and scenes of fireside animation simultaneously on stage and in print informs my understanding of how *Our Mutual Friend* responded to its media environment, reflecting the tastes of an increasingly literate audience who were also becoming sophisticated consumers of visual media. With this context in mind, we can read *Our Mutual Friend* as a response to Dr. Pepper's Ghost, an assertion that staged magic lantern shows were not the only venues for thrilling visual illusions. Pepper's eerily lifelike phantom captivated audiences, but, as Groth points out, the purpose of the performance was primarily to

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[14] For Groth's detailed discussion of fire-gazing in *The Haunted Man* as indicative of Redlaw's troubled memories and his inability to distinguish between reality and hallucinations, see pp. 100–25. Her chapter, which demonstrates that "automatism" and "wonder" operate in both Dickens's *Haunted Man* and Pepper's Ghost despite Dickens's dislike of mechanized entertainments and Pepper's preferences for scientific accuracy, also includes a great analysis of Tenniel and Leech's illustrations for *The Haunted Man*.

demystify the moving spectral image (117). *Our Mutual Friend*, on the other hand, revitalizes an unscientific and more fanciful form of imagination by staging acts of textual and visual media literacies, including Lizzie's fire-gazing, alongside scenes of bodily reanimation and fireside animation.

The novel's preoccupation with bodily reanimation and media literacies indicates print's ability to preserve older forms of moving-image technologies, like fire-gazing, while also anticipating future innovations, like the cinema. The theme of reanimation begins with Old Harmon's will, which "directs himself to be buried with certain eccentric ceremonies and precautions against his coming to life" (26). His heir, the "living-dead man" John Harmon, mechanically imitates life under the alias of John Rokesmith while securing his fortune. Reanimation resurfaces dramatically when locals resuscitate Rogue Riderhood after his near-fatal collision with a steamship and the narrator exclaims, "See! A token of life! An indubitable token of life! The spark may smoulder and go out, or it may glow and expand, but see!" (440). There are key differences between Ruskin's factory worker and Rogue Riderhood, but this scene represents both the figurative and literal portrayal of "fireside humanity." In this scene, Ruskin's concept of fireside humanity extends beyond metaphorical revitalization and into a physical reanimation of Riderhood's "spark." In 1902 A.C. Swinburne connected the scene of fireside reanimation to literary creation, praising "the resurrection of Rogue Riderhood" as an "incomparable scene," and stated, it "is one of the very greatest works of any creator who ever revealed himself as a master of fiction: a word, it should be unnecessary to repeat, synonymous with the word creation" (35). The connections among the fireside,

animation, and reanimation in this scene locate a vitality not only the medium of firelight,

but also in the acts of writing and reading and in the novel as a print medium and

animating force.

The animating spark, rekindled after colliding with modern technology, links fire

with reanimation and underscores the vitality of the moving pictures that Lizzie Hexam

sees while fire-gazing. Dickens's tendency to use coal-fuelled fire-gazing as a symbol of

the imagination has been described as a form of escape for abused or impoverished

characters by Garrett Stewart, and as economically impossible and "ahistorical" by

Adelene Buckland.[15] Buckland explains that Dickens often overlooked the material and

economic limitations of coal fires in favor of coal's symbolic value as a source of

humanity, transformation, and the imagination. Coal's symbolism, Buckland argues,

illuminates how Lizzie Hexam's fire-gazing helps rehabilitate Bella Wilfer, and why a

reformed Scrooge stokes a generous coal fire in the conclusion of *A Christmas Carol*

(para. 29, 8). Ella Mershon bolsters Buckland's interpretation of coal in *Our Mutual*

Friend, connects Lizzie Hexam's coal fireside to the novel's larger plot about inheriting

mounds of dust, and offers "a chemical reading" of dust and coal as forms of decay with

reanimating potential (483-484). Following this scholarly analysis of coal fire as a

transformative agent of the imagination, I argue that Dickens returns to coal in *Our*

Mutual Friend to reanimate, in print, an unscientific and more fanciful form of media

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[15] See Garrett Stewart, *Dickens and the Trials of Imagination*, pp. 160–70, and Adelene Buckland, "'Pictures in the Fire': The Dickensian Hearth and the Concept of History," para. 5–7 of 30. Buckland also discusses Eugene Wrayburn's and Mortimer Lightwood's disguises as lime merchants, and their fire-inspired names, within the context of industrialized light and fears of diminishing coal supplies (para. 26–27).

literacy. The novel's preoccupation with fire and (re)animation presents fire-gazing as a

moving-image technology that retains its associations with domestic firesides and

becomes a humanizing force in an industrial, artificially illuminated, and media-saturated

era.[16]

Rather than dismissing Lizzie's fire-gazing as childish fancy, as her brother

Charley does later in the novel, Dickens foregrounds her fireside reverie as a vital form of

media literacy.[17] Early in the novel, Lizzie confides in Charley that when she "sit[s] a-

looking" at the fire, the "dull glow near" the coals "comes like pictures" to her (37).

Prompted by the flicker fusion of the flames themselves, the associative pictures that

"come and go" recall both Hunt's account of the Firesider as well as the dissolving views

of magic lantern shows.[18] Importantly, as the scene unfolds, Charley's reliance on textual

literacy and scientific accuracy only highlights Lizzie's more creative reverie. When

Charley looks at the burning coals, he announces: "That's gas, that is, […] coming out of

a bit of a forest that's been under the mud that was under the water in the days of Noah's

Ark. Look here! When I take the poker — so — and give it a dig —." (37). But Lizzie

intercedes, preventing Charley's overzealous stirring of the fire: "Don't disturb it,

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[16] For a related discussion of fireside reverie in relation to industrialized light, see
Richard Leahy's "Fire and Reverie: Domestic Light and the Individual
in *Cranford* and *Mary Barton*," which follows the Bachelard's psychoanalytic framework
and interprets fireside reverie as emblematic of domestic spaces, part of and yet separate
from the networked and industrialized associations of gas lighting, and as and central to
Gaskell's interest in the development of the self.

[17] Charley dismisses Lizzie's fire-gazing as dreaming and says it is necessary instead to
'[look] into the real world' and to 'control your fancies a little' (227, 228).

[18] Isobel Armstrong discusses the technical aspects of dissolving views in magic lantern
shows in *Victorian Glassworlds*, pp. 258–59.

Charley, or it'll be all in a blaze" (37). Charley represents an artless fire-gazer, his

perception constrained by geological history and biblical narratives, knowledge that he

has accumulated, presumably, under Bradley Headstone's tutelage. Initially, Charley

expresses interest in learning from Lizzie as well as Headstone, and implicitly invites the

reader to join the instructional scene of fireside reverie when he directs Lizzie to "show

us a picture" and "tell us where to look" (37). At her brother's insistence, Lizzie gazes

into the burning coals and a montage of their childhood memories materializes while

Lizzie narrates: "Sometimes we are sleepy […], sometimes we are very hungry,

sometimes we are a little frightened" (37). Impressed, Charley tells Lizzie that she has

substituted "the hollow down by the flare" for a "library of books," placing her fireside

reverie on a continuum with, though definitely secondary to, books and textual literacy

(39).

Skillfully combining conscious and unconscious modes of perception, Lizzie's

fire-gazing produces pictures from their personal histories rather than simply repeating

the history of the coal itself. Though Lizzie guides Charley's gaze, he complains, "There

seems to be the deuce-and-all in the hollow down by the flare" (38). Charley is a helpless

pupil when it comes to imaginative "a-looking," and his failure foreshadows a growing

divide between Charley and the Hexam fireside. Lizzie foresees this rift when Charley

requests a "fortune-telling" picture, and the pictures in the fire show him becoming a

teacher while she stays home with their illiterate father, Gaffer Hexam (38–39). Lizzie's

attitude towards education is fundamentally different from Gaffer's, who proudly

illustrates that he cannot read by pointing to the handbills "stuck against the wall" in his

home and announcing that he "know[s] 'em by their places on the wall" (31). Gaffer

reduces printed words to static shapes decipherable only by the handbills' relative spatial

arrangement, whereas Lizzie's moving pictures in the fire, remediated in text, suggest

that printed words can also conjure moving pictures. Prompted by the "natural light" of

the coal fire, Lizzie's fire-gazing models collaborative image making for the reader, if not

for the hopelessly unimaginative Charley, and draws upon the cultural memories of coal

and fire-gazing as outmoded technologies to navigate tensions between individualized

imaginations and mass-produced media.

Though Lizzie's fire-gazing enabled Charlie's scholastic ambitions, Bradley

Headstone's inflexible educational methods cannot tolerate her highly individualized "a-

looking." For instance, when Charley first explains to Headstone that Lizzie has

substituted pictures in the fire for books, Headstone tersely replies, '"I don't like that"

(230). His rigid response suggests his disapproval of fire-gazing's primitive connotations

and his inability to accommodate an unregulated form of imagination not subject to the

narrative constraints of other frameworks, a point visually reinforced by the fact that the

Hexams' coal-fire grate is not enclosed by a fireplace. Lizzie's textual illiteracy is an

obstacle that she wants to overcome, but her fire-gazing reappears throughout the novel,

offering a humanizing alternative to the rote and strictly textual literacy represented by

Bradley Headstone and, consequently, by Charley Hexam. The Hexam siblings' disparate

modes of perception dramatize the thematic conflict between rote education and fancy

that Dickens memorably explored a decade earlier in *Hard Times* (1854), a novel that

features another educator with an alarming surname. Valuing only facts and abhorring

fancy, Mr. Gradgrind's teaching philosophy is as pulverizing as Headstone's is deadening, and we see its detrimental impact on the imagination of his daughter, Louisa Gradgrind, who often gazes into the fire but only sees "the short-lived sparks that so soon subsided into ashes" (124).[19] Lizzie avoids Louisa's fate as she learns to read, weaving together textual and visual literacies.

The motif of animating fire continues in Mr. Venus's shop, and the narration of the scene, combined with Marcus Stone's wood engraving, shows how print media can remediate fire as a moving-image technology. In Stone's illustration, "Mr. Venus Surrounded by the Trophies of his Art," a kettle boils in the fireplace and its steam entwines with the fire's smoke, providing an illusion of movement that contrasts with the still-life figures that adorn the taxidermist's shop (see fig. 1.2). The movement represented in Stone's illustration reflects Mr. Venus's pride in capturing potential movement in his taxidermy figures. Referencing a canary, Mr. Venus declares, "There's animation! On a twig, making up his mind to hop!" (86). Mr. Venus's skills already convey a semblance of animation, but when Silas Wegg opens the door to leave the shop, the light of a guttering candle flame springs the shop into flickering motion:

> The movement so shakes the crazy shop, and so shakes a momentary flare out of the candle, as that the babies — Hindoo, African, and British — the 'human warious,' the French gentleman, the green glass-eyed cats, the dogs, the ducks, and all the rest of the collection, show for an instant as if paralytically animated. (91)

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[19] The relationship between fire-gazing and literacy appears in *Hard Times* as well. In one scene, Louisa seems "as if she were reading what she asked in the fire, and it were not quite plainly written there" (69).

Fig. 1.2, Marcus Stone, "Mr. Venus Surrounded by the Trophies of his Art," wood engraving, in Charles Dickens, *Our Mutual Friend*, 2 vols (London: Chapman and Hall, 1865), I, facing p. 61. RB 122456. The Huntington Library, San Marino, California.

The narration remediates the inherent flicker fusion of firelight, creating not only the illusion of motion, but reanimating stilled life into living, moving pictures. The setting of the taxidermist's shop is particularly important for demonstrating that print can preserve and reanimate outmoded animation technologies. Like Lizzie's fire-gazing, Dickens's narration and Stone's illustration prompt the reader to participate in animating the scene.[20] Stone's illustration and Mr. Venus's taxidermy both suggest movement, and

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[20] Jane R. Cohen describes the collaborative relationship between Dickens and Marcus Stone in *Charles Dickens and His Original Illustrators*, pp. 203–09. Cohen notes that Stone readily accepted Dickens's directions and that Dickens, in turn, granted Stone some degree of autonomy. The Dalziel brothers and W. T. Green transformed Marcus's illustrations into wood engravings. Decades later, in a series of lectures on *The Art of*

Dickens's narration of a flickering candle flame highlights the interactions between fire, image, and text.

Lizzie herself becomes an animated fireside image in the mind of Eugene Wrayburn, recalling older technologies of the moving image as well as prefiguring the early film technologies that would emerge in the late nineteenth century (see fig. 1.3). After first encountering Lizzie sitting by the fire engaged in needlework, Eugene confesses to Mortimer Lightwood, "that lonely girl with the dark hair runs in my head. It was little more than a glimpse we had of her that last time, and yet I almost see her waiting by the fire to-night" (163). Lizzie Hexam's image *runs* like an endlessly repeatable moving image or a continuous film strip approximately twenty years before Eadweard Muybridge's Zoopraxiscope "projected some of the world's first moving pictures in 1882" (Castle 41). In a later scene, after leaving the Six Jolly Fellowship Porters, Eugene creeps up to the Hexams' window. From Eugene's point of view, the window frames Lizzie's reverie and makes her private fire-gazing available for public consumption. As Eugene gazes through the window, the narrator describes her sitting "on the ground, looking at the brazier, with her face leaning on her hand. There was a kind of film or flicker on her face, which at first he took to be the fitful firelight; but, on a second look, he saw that she was weeping" (164–66).

WAITING FOR FATHER.

Fig. 1.3, Marcus Stone, "Waiting for Father," wood engraving, in Charles Dickens, *Our Mutual Friend*, 2 vols (London: Chapman and Hall, 1865), vol. 1, facing p. 124. RB 122456. The Huntington Library, San Marino, California.

The visual effects created by firelight playing on her tears prefigure the incipient cinematic qualities of fire, and Eugene's gaze figuratively transforms the private glow of the domestic coal fire into the glare of a theatre gas lamp, evocative of other theatrical entertainments, including the use of silhouettes on stage and "shadow shows."[21] Peering through a glass aperture into an illuminated interior also emulates peep-show entertainments, but I am more interested in how the fire where Lizzie sits "a-looking" projects the domestic scene onto the windowpane, or through the glass and into the street. The spatial configurations of the scene imitate the image-projection technology of magic lanterns: the coal fire acts as an enclosed flame that then projects Lizzie's image onto or through a glass slide. Stone's illustration replicates the square window frame, working in tandem with the narration to align the reader's gaze with Eugene's. Individual and mass-media consumption converge in this scene through Lizzie's fire-gazing, Stone's illustration, and the narration of Eugene's point of view. Scenes of fireside animation and reanimation in *Our Mutual Friend* reassert the importance of older forms of animation in an era with emerging cinematic technologies, and present print media as a particularly malleable medium for staging overlaps and exchanges across past, present, and future forms of media technologies. If the fireside was a sentimental refuge from modernity, then Dickens was the final refuge for the Victorian fireside, and his representation of fire's (re)animating energies implies that reading, as a form of media consumption, can rekindle the human spirit and transform mechanized bodies back into flesh and blood.

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[21] For more information about shadow shows, see Altick, pp. 117–19.

Conclusion

The remediation of fire-gazing continues beyond the nineteenth century, but in ways that evade the teleology of perfection that media archaeologists caution against. For instance, the short 1908 silent film *Fireside Reminiscences* imperfectly remediates fire-gazing as a moving-image technology for projecting memories.[22] Directed by Edwin S. Porter and J. Searle Dawley, the film opens with the scene of a husband and wife who separate after suspicions of her infidelity. A title card with the words "Three years later" appears before revealing the same man finishing his dinner alone and kissing his daughter goodnight. Afterwards, he sits in front of his fireplace and a small flutter of light appears just above the logs — a flicker of flame perhaps, or a tendril of smoke — which seemingly expands, or is replaced, when the image of his wife's face is projected into the alcove. Subsequent vignettes from their courtship and marriage dissolve into and out of view, including the confrontation from the film's opening scene.

The film relies on the audience's familiarity with fire-gazing as a narrative framework to interpret the series of images as a meaningful sequence. According to Charles Musser, Porter's audiences also would have recognized the film as a modified adaptation of a popular song "After the Ball," an external narrative framework that would have aided interpretation (411-412). The husband remains relatively motionless, passively absorbing the dissolving views that are framed and collected in the square

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[22] *Fireside Reminiscences*, dir. by Edwin S. Porter and J. Searle Dawley (Edison Manufacturing Company, 1908). I am grateful to Tom Gunning for recommending this film during a particularly generative conversation at the 2014 Interdisciplinary Nineteenth-Century Studies Conference. For Gunning's interpretation of the film's temporal ambiguities, see *D. W. Griffith and the Origins of American Narrative Film*, p. 117.

alcove of the fireplace. As with Lizzie's narration of the Hexam children's past and future, the glowing images shift from past to present or the near future, revealing the figure of a woman collapsing in the snow outside the house gates. Once the pictures subside, the man's servant enters the room and alerts him that his wife really has collapsed outside, and the film concludes with their reconciliation. The shared architectural iconography of hearth, stage, and screen transforms the fireplace into a repository for a cultural history of the moving image. However, while this particular example of remediation preserves fire-gazing to a certain extent, it also ossifies the former ally of the plastic imagination. Images flicker above the logs, replacing flames with projected cinematic light, and the character's externalized reflections limit the potential for audiences to generate their own individualized memories and associations.

If nineteenth-century gas flames only conjured images of the gas bill before audiences ultimately turned their gazes elsewhere, as Schivelbusch suggests, then twenty-first century audiences are even less likely to lose themselves in dreams of "primeval fire." Doing away with the inconveniences of wood and coal fires, modern fireplaces can now rely on gas flames and concrete logs, and homes without fireplaces can repurpose television and computer screens, casting the synthetic glow of digitalized or pre-recorded flames.[23] Porter and Dawley's *Fireside Reminiscences* participates in this turn away from flames and towards screens, and if we were to create a modern retelling of the film, the character's mental pictures would most likely appear on a television screen mounted above the fireplace. Artificial fires on screens may remind us of fire's multisensory

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[23] See, for example, *Fireplace 4K: Classic Crackling Fireplace for Your Home*, dir. by George Ford. *Netflix*, 2015.

properties, but they do not enable the kinetic, aural, tactile experiences that print

remediation approximates as we mentally assume the pose of the Firesider while reading

Hunt, or sit a-looking with Lizzie Hexam at the pictures that come and go in the hollow

down by the flare.

Chapter 2
Matches and Street Lamps: Illuminating Instruments and the Moving Image

This chapter builds from the discussion of fire-gazing in the previous chapter as a media technology associated with the plastic imagination that was perceived either as an alternative to pre-fabricated, mass-produced media or as a vacant pastime. The fireside, however, was not the only target of conflicting thoughts about fire and media entertainments. As the culture surrounding new forms of light continued to change in response to advancements, outmoded vehicles for illumination, such as the match and the street lamp, became potent symbols of a pre-industrial imagination despite their own industrial origins. After the advent of electricity, for example, the shape of the gas lamp accumulated a residue of nostalgia more frequently associated with older forms of light, and that nostalgia persists in the twenty-first century. British Gas currently maintains 1,500 gas lamps in London, primarily in Westminster, and some are 200 years old.[1] In Los Angeles, California, LEDs illuminate shapes from the early decades of electric light in refashioned vintage streetlights from the 1920s and 30s as a part of Chris Burden's *Urban Light*. The decorative cast iron details and glass globe lanterns are a beloved art installation at Los Angeles County Museum of Art, representing a hybrid of old and new artificial light arranged in spectacular abundance as both a celebration of urban landscapes and as a space and time apart from the cityscape.

Beginning in the nineteenth century, the materials associated with outmoded forms of heat and light remained fascinating to consumers, partly due to nostalgia, but

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[1] See the Will Noble's interactive map of London's gas lamps for *The Londonist* [last updated in December 2016] and Maev Kennedy's 2015 article in *The Guardian*, "Light brigade: carrying the torch for London's last gas street lamps."

also because they were part of the visual culture of the media environment. This chapter explores two particular material forms that accumulated an aura of pre-industrial nostalgia despite their connections to industrial and modern culture: the match and the street lamp. By examining two of Hans Christian Andersen's fairy tales, "The Little Match Girl" and "The Old Street Lamp," both published in England in the mid nineteenth century, this chapter engages with scholarly work on instruments of the imagination that tends to focus on the new ways of seeing and the new narrative technologies made possible through innovations to optical devices. Joss Marsh, for example, has argued that the magic lantern inspired Dickens's textual descriptions that mimic pre-cinematic dissolving views in his novels (335-336). This chapter continues to refine such claims by showing that the exchanges between narrative and visual technologies were more reciprocal and recursive.

Throughout this chapter, I chart continuities between non-mechanical technologies, like the match, and mechanized optical devices, like the magic lantern. My understanding of matches and lamps as animation technologies builds from Thomas L. Hankins and Robert J. Silverman's study of philosophical toys, instruments that retained the aura of "natural magic," which "emulate[d] the wonders of nature and glorif[ied] their 'wondrousness,'" while also participating in eighteenth- and nineteenth-century scientific discourses about observation, reason, and fact (5).[2] Moreover, this chapter continues to demonstrate the importance of recuperating firelight as a media technology by

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[2] Hankins and Silverman argue that nineteenth-century magic lanterns "retained [their] association with natural magic longer than most instruments from the seventeenth century" (70). I will examine the relationship between fire-based media and natural magic in more detail in the book version of this project.

demonstrating how fire facilitates multi-sensory perceptual effects in Andersen's fairy tales that would not have been possible if the fairy tales were only inspired by the mechanized moving image. The match, the match girl, and the street lamp were popularly represented figures in mid-to-late Victorian culture, and this chapter will demonstrate the ways in which Andersen's fairy tales responded to the larger contexts that informed the cultural imaginary of those figures and how those broader associations participate in my analysis of media consumption and mass culture.

Remembering the Match as a Lighting Innovation

Inspired by a turn-of-the-century book that explains how common things were made, Asa Briggs's *Victorian Things* groups matches together with steel pens, pins, and needles in a chapter on "The Wonders of Common Things." Briggs justifies the arrangement by appealing to the ethos and organization of his source material, Archibald Williams's *How It Is Made*, a book that includes chapters on paper, matches, and other commodities that appear unremarkable but, as Williams states, might spark an interest in audiences who "cluster round 'to watch the creation even of an article which may not be interesting in itself'" (Williams qtd. in Briggs 180).[3] Briggs further explains that both pens and matches were worthy of special attention in Williams's book and in later scholarly histories because they were "two of the most common things in increased use in Victorian England" and because they were instruments related to literary history (181).

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[3] This fascination has continued with object theory and histories, including *Cigarette Lighter* published by Bloomsbury's Object Lessons series in 2016.

Briggs asks, "Might not a match, a pin or a needle – worth but a fraction of a penny – also stimulate a poet who has seen it in the making?" (180).

Remembering that matches were innovative lighting technologies is the first step in recovering the particular perceptual practices that they made possible as well as their later symbolic resonance in print and visual culture. Briggs clarifies that matches and pens are technologies by also appealing to the circumstances of geography and date, reminding his readers that matches were invented in Stockton approximately one and a half years after "the first public railway between Stockton and Darlington had been opened" (188). While comparing matches and the railway may seem far fetched to some, Briggs's drawing of confluences serves a larger point: to illustrate that the items we take for granted are inventions and technologies worthy of deep consideration. The reason for a detailed analysis of seemingly banal technologies lies not only in their sheer quantity or in their shared etymologies, which Briggs details at length, but in their symbolic and material histories for writing words and creating images. "Both matches and pens created images," Briggs pronounces, but as evidenced by his reference to a Prometheus allusion in *Othello*, Briggs primarily finds the image-making power of matches in the mythological origins and symbolic connotations of fire (181). Yet Briggs highlights how matches caught the attention of British imaginations with pictures of bicycles and sports on the match boxes that were visually appealing to consumers as well as brand names, like wax Vesta matches, that conjured connections to mythological iconographies (190, 181). Mythological allusions and commercial imagery appealed to consumers once matches became less expensive, and they also indicate the larger print and visual culture

media environment in which matches and match boxes circulated. Matches also circulated within the shared contexts of cigarette cards, small pieces of illustrated cardboard that included easily consumable factoids, which Susan Zieger has analyzed as an example of how ephemeral commodities can enhance our understanding of media history and consumer culture (1-2; 58-59).

This chapter takes seriously the idea that matches and street lamps make images. In Andersen's fairy tales, a new animated scene appears each time the little match seller ignites one of her matches, and the old street lamp can produce animated images from around the world. These animated scenes are not merely a remediation of magic lantern technology, but indicative of the image-making power of matches and street lamps themselves. My argument is specific to the match and the street lamp, but it shares in Maria Tatar's observation that the "surface beauty" of fairy tales has a kind of "ignition power," a term eminently suitable for fire-based media, which "inspire[s] our powers of imagination so that we begin to see scenes described by nothing more than words on a page" (xvii).[4] This chapter also examines how matches and street lamps were overdetermined symbols capable of conjuring images through associations and demonstrates that both instruments were vital to print and visual media technologies. In addition to the literal images that decorated the matchboxes themselves, matches created figurative images through association – a process that continued beyond the realm of mythological connections and into topical debates. Referencing Henry Mayhew's visual and textual depictions of match girls and the 1870s Parliamentary debates about taxing

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[4] Tatar notes that ignition power "is inspired by Elaine Scarry's concept of radiant ignition as developed and elaborated in *Dreaming by the Book*" (note 3, xvii).

matches, Briggs demonstrates how mid-century sympathies for the match girl were enlisted in an emotional appeal against the stamp tax (194). In her letter to Mr. Gladstone protesting the tax, Queen Victoria stated that "matches have become a necessity of life," and that "it seems *certain* that the tax will seriously affect the manufacture and sale of matches, which is said to be the sole means of support of a vast number of the very poorest people and little children, especially in London…" (qtd. in Buckle 131).

Though matches would become nostalgic forms of light, they were also subject to their own process of innovation. In *London Labour and the London Poor* (1851), Mayhew and the match sellers he interviews describe a shift from hand-made "brimstone" matches and early "instantaneous lights" (1: 431), such as the German Congreve match, to the Lucifer match, the mass-produced and self-igniting match. Early brimstone matches were more cumbersome to use than Lucifer matches. They measured two or three times longer than the Lucifer match and were dipped in brimstone, an archaic term for sulfur, rather than in the cumulative layers of sulfur and phosphorus used for Lucifer matches. The Lucifer match would ignite once friction was applied to the phosphorous, but the brimstone match required additional accessories: flint and steel from a tinderbox that could transfer a spark to the brimstone's tip when repetitively struck together, hence the phrase to "'strike a light'" (1: 431). Mayhew's interviews reveal that old military men without pensions, often seen wearing their "tattered regimentals," were the primary purveyors of brimstone matches (1: 431). One of the "old brimstone" sellers Mayhew learns about was reported as never selling Lucifer matches and saying, "'they was new-fangled rubbish…and would soon have their day'" (1: 431).

The first iteration of "instantaneous lights" to threaten the commercial viability of

brimstone matches were inexpensive "German Congreves" that, according to Mayhew,

were known for their off-putting odor and could not be kept in the bedroom (1: 432). The

change from brimstone to instantaneous Lucifer matches resulted in more efficient and

less odorous lights, and, as we will see, in the changing demographics of street sellers

from old military men to little match girls. As I discuss later in this chapter, though the

term "little match girl" more popularly connotes the match sellers that Mayhew

interviews, the match's association with femininity and childhood also extend to the

match factory worker, and the little match girl becomes an overdetermined symbol

following the Bryant and May match factory strike in 1888. In Isobel Armstrong's recent

remarks about the emerging scholarship on the "poetics of fire," she writes, "I hope that

the London Match Girls' Strike of 1888 might have a place in this poetics of fire at some

point, with their perilous work with white phosphorous, the cheapest way to ignite a

match, and their heroic resistance to its poison" ("Fire" 6). This chapter addresses the

visual and material culture leading up to the strike because the apparent universal appeal

of the little match seller that circulated in literary and visual culture, and who remained a

fixture of London streets, augmented sympathies for the Bryant and May match makers,

mostly women and children, who organized a successful strike to protest dangerous and

unfair working conditions.[5]

Though Mayhew's interviewees were mostly boys and men, the chapter

concludes that most match sellers were women and girls, primarily Irish, or old men who

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[5] Seth Koven examines the sympathies for the "match girl" as both a match seller and
match factory worker within the context of the 1888 strike, pp. 85-95.

were out of work (1: 433). It is the figure of impoverished but virtuous girlhood that comes to dominate literary and visual histories despite, as Seth Koven explains, social anxieties about how and where match girls were circulating in public, commercial spaces (79). The familiar figure of the little match girl in the Victorian imaginary formed through real-life encounters with match girls in London's streets and through the circulation of her "type" in literary and visual entertainments. She appears briefly in Oscar Wilde's 1888 fairy tale "The Happy Prince," as Koven reminds us, and inspired various other print and visual media adaptations, including a *tableau vivant* at the 1888 Anglo-Danish Exhibition (83-86). The visceral and multi-sensory depictions of the match girl's life, as disseminated by Mayhew, Andersen, and nineteenth-century periodicals, appealed to public sympathy and interest. Koven argues the impoverished match girl garnered additional sympathy because she was portrayed as the victim of an abusive domestic life that pressed her into service: the little match girl's "tale was about bad parents, not an immoral political economy. Anderson's tale contributed to the emerging mid-century consensus that poor children needed to be protected not just from avaricious employers but from their own parents" (83). To provide just one non-fiction example that supports Koven's analysis of the fictionalized portrayals of abuse, in Mayhew's account, one match seller insists that he has "a just sort of claim" on his children by asking them to help him sell matches (1: 432).

Industrially produced matches led to decreased prices and higher rates of consumption, which in turn contributed to the popularity of the little match girl. Matches became a necessary feature of modern life, though some members of Parliament during

an 1867 meeting expressed their fears that low prices would lead to the "reckless" and "incautious" use of matches, and possibly to accidental conflagrations that would endanger the public ("Report from the Select Committee on Fire Protection" 32, 40). These anxieties were a part of England's fear of urban fires, which I will discuss in the next two chapters on accidental and staged conflagrations, but Parliament's attempts to levy a stamp tax on matches was widely condemned and ultimately failed. Though Parliament cited public safety concerns, they were also motivated by perceptions of how working and lower class citizens behaved as consumers, and these classed assumptions also informed conversations about how public audiences consumed media entertainments.

Match Girls in Print Media

The imagery of match girls proliferated in print media at the same time as lighting innovations were transforming the materials associated with outmoded forms of heat and light into nostalgic icons. This imagery circulated in text and image and would appear in later nineteenth century media entertainments, including magic lantern shows and, later, early cinema. Andersen's "Little Match Girl," for example, remained a perennially favorite Christmas story and was frequently adapted for magic lantern shows and other nineteenth-century light-based media entertainments, and it was later adapted in at least one early twentieth century silent film.[6] The widely available iconography of the match

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[6] In the book version of this project, I will analyze magic lantern and early cinematic adaptations of Andersen's match girl, such as the 1902 silent film *The Little Match Seller*, directed by James Williamson for the Williamson Kinematograph Company. Despite the

girl facilitated her translation across forms of media and would later become a necessary means of engaging public interest during the Bryant and May factory strike. Late nineteenth century magic lantern shows of the little match girl relied on audience familiarity with Hans Christian Anderson's fairy tale and with the match's broader cultural associations: the factory narratives that portrayed the match as an innovative technology, the sympathetic figure of the match seller on London's streets, and periodical reports that portrayed match factory workers as sympathetic.

As with other innovations in heat and light, mass-produced matches were an industrial modernization of an outmoded technology. In an 1850 issue of *Household Words*, Charles Knight "trace[s] this antique machinery through its various stages of its production," classifying the match as a machine deserving of the special attention afforded by investigative, periodical narratives that showcased the processes of production (55). The article primarily focuses on the Lucifer match as an illustration of the social benefits of "cheapness," noting that its reduced cost makes it an easily affordable item that can be routinely consumed and replenished in both rich and poor households. The low cost of matches, Knight notes, means they are a reliable, inexpensive source of light for poor households that may prudently reduce their expenditures during the summer months by not maintaining a hearth fire throughout the day (57). Knight frames the match as a modern technology of fire that is made available to all through the personified avatars of Science and Industry. While the article focuses

match girls rich history of adaptation in the nineteenth century, Jack Zipes claims "very few filmmakers, with the exception of Michael Sporn [in 1999]…have dared to adapt this tale" (274).

on the Lucifer match and its brand of Safety Matches, Knight claims that any match, whether from a "Penny Box of Lucifers, or Congreves, or by whatever name called, is a real triumph of Science, and an advance in Civilisation" (55).

Knight furthers the figuration of matches as emblems of modernity and as part of industrial narratives of progress by outlining the series of historical events that led to this advancement in what he describes as a "fire revolution" (55). Citing the decreasing cost of "light-box[es]," from one guinea, to five shillings, to one shilling, Knight continues to explain "the fire revolution" as an ongoing series of innovations in chemically produced light and industrially produced matches, and he clarifies the mutually beneficial relationship between production and consumption. Though "Chemistry," an apparently autonomous figure in Knight's tale, had made discoveries twenty years before that could have "abolish[ed]" the tinder-box, only "the rich few" had access to chemically produced light, which cost a guinea and was sold in a "complex and ornamental casket" (55).[7] Knight compares this unfair disparity and the eventual democratization of chemically produced fire to early printed books that resembled ornate manuscripts and were designed for a wealthy consumer before innovations in printing technologies made the book more widely available for everyone regardless of their socio-economic status (55). The brief comparison imbues the match industry with a similarly democratizing power of the printing press and, of particular interest to this chapter, with the dissemination of literacy. By comparing the match to the inexpensive printed book, Knight helps the reader

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[7] Catherine Waters notes that Knight had a tendency to use personifications that "ignore[d] the inventors and workers involved" in the industrial process (91). Waters also situates the genres of factory visits and biographies of objects within larger scholarly conversations about the emergence of commodity culture.

understand how the match has become a mainstay of everyday life rather than a luxury item for "the rich few." The match is part of a technologically manufactured print media environment that was self-consciously reflected in the print medium of the *Household Words* article itself. Moreover, the match, like the cheaply printed book, is part of consumer culture. Most importantly for the *Household Words* "illustration of cheapness" theme, dependable, easily expendable, and efficient matches were no longer exclusive to the wealthy, but were now instead necessary comforts of modern life that were accessible to everyone.

With a dramatic flare meant to educate and to entertain, Knight's history of the Lucifer Match and the "fire revolution" begins with an anecdote from the darker days of the tinder-box regime that characterizes the plight of the everyman who once had to grapple with the cumbersome, unreliable, and noisy tinder-box. The scene opens with an infant waking in the night and a mother hurrying to light a match using her tinder-box, striking sparks that fail to light the matches. The bedroom drama unfolding in the home of a "cottager, artisan, or small tradesman" spurs the "toil-worn father" from his otherwise peaceful slumber, and he reluctantly steps outside to "obtain…a light from the watchman" (54-55). The modern safety match could have prevented the calamitous series of events, Knight reassures his readers, since its surefire ignition would have eliminated the flint's repetitive, concussive strikes on the tinder-box, an action "as rude, as laborious, and as uncertain, as the effort of the Indian to produce a flame by the friction of two dry sticks" (54). Recasting the tinderbox as a "primitive" tool through a condescending and stereotyped view, Knight emphasizes that the match is a civilized

technology. The modern industrially manufactured match would have averted this

domestic drama, shining light into darkness, accelerating the mother's care into action

through its quick illumination, thus soothing the infant and ensuring the father's rest. In

this anecdote, Knight connects the humble match to a larger narrative of everyday life;

the match is not just a modern illumination technology, but a guarantor of sleep and, by

extension, a protector of the cottager, artisan, or small tradesman's labor the next day.

Though published contemporaneously with profiles of factory life that revealed

oppressive working conditions and the traumatic effects of alienation of labor, a genre

Isobel Armstrong analyzes in *Victorian Glassworlds*, Knight praises the matchmaking

industry's precision and efficiency. As with the turn-of-the-century tome that groups

matches and pins together referenced in Briggs's *Victorian Things*, Adam Smith's tale of

the factory-made pin serves as a touchstone for Knight's mid-century article, a

comparison that emphasizes the match factory's similarly effective fragmentation of

labor (Knight 55-56). Lest the reader begin to suspect that the match provides relief only

for the modern bourgeois consumer, Knight sketches factory life at Bethnal Green.

Knight's portrait of industrial life describes human motion as mechanical movement, a

comparison that Ruskin also made in 1850 when prescribing the shared "fireside

humanity" as an antidote to inhuman, mechanical labor, as I discussed in the previous

chapter. Knight, however, sees virtuous parallels between mechanical and human

actions.[8] Furthermore, rather than lamenting the alienation of labor by praising

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[8] Waters clarifies that Knight's admiration for machine-like human movements in the
Lucifer match article is a motif that appears in other narratives of factory life; both

individualized, hand-dipped, singular matches and cumbersome tinder boxes, Knight

praises Chemistry and "bold adventurers" who realized "matches, in themselves the

vehicles of fire without aid of spark and tinder, might be manufactured upon the factory

system" (55). The industrial system enhanced efficiency and, according to Knight,

enabled "the humblest in the land might have a new and indispensable comfort at the

very lowest rate of cheapness" (55).

Knight marvels at the alliance between Lucifer Match and modernity at every step

of its industrial manufacture, from the uniform, machine-hewn splints of "Norway's

finest" trees to the efficiently packed boxes of finished matches. A British factory

produces five-inch wooden splints and then delivers them by truck to the "dipping-house"

that finishes two hundred bundles of eighteen hundred splints, or a total of 360,000

dipped matches per day (56). After a bundle is "dipped into sulphur," the matches are

separated from one another during a process called "dusting," carried out by a young boy

who sits on the floor and strikes the dipped ends with a mallet until they are separated. In

order to ensure that the matches are of the finest quality, Knight reports, they proceed

through the sulphur-dipping and dusting processes again before getting plunged into a

preparation of phosphorus or chlorate of potash, the chemical conquerors of the noisy

tinder-box: "[t]he phosphorus produces the pale, noiseless fire; the chlorate of potash the

sharp cracking illumination" (56).

After the matches are separated and dried in racks, they are gathered into bundles,

cut, and placed into boxes. The boxes, which Knight praises as "a marvel of neatness and

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Knight and Harriet Martineau, for instance, thought machines "extend[ed] or perfect[ed]
the abilities of those who operate them" (92).

cheapness," are yet another example of fragmented labor, since they are manufactured in another division of the dipping establishment and made from "scale-board…thin slices of wood, planed or scaled off a plank" (56). Knight lingers on the precise movements of a young boy who cuts and boxes matches, his skills honed over time through repetition and "performed with a rapidity almost unexampled" (56). The accelerated yet accurate movements have profitable results: "two hundred thousand matches are cut, and two hundred thousand boxes filled in a day, by one boy, at the wages of three halfpence per gross of boxes" (56). There is no wastefulness, excess, or redundancy in Knight's calculations; every match is accounted for, and every movement is exact and purposeful.

In continuing to illustrate the benefits of cheapness, Knight explains how the apparent over-production of matches still follows the laws of supply and demand. A total of ten Lucifer manufactories in London and other "provincial towns" produce matches solely for local consumption since railways refused to transport the combustible materials (56). According to Knight's estimates, Lucifer manufactories produced such an abundance of matches that London's population would have to consume thirty-three boxes per inhabited house annually: an apparently impossible feat (56). Yet, given the cheapness of matches, Knight enumerates the many ways in which those matches are consumed, emphasizing their ephemerality as a non-reusable commodity. In contrast to wealthier households that might keep a central fire running all summer, poor households, Knight claims, do not maintain central fires in summer because they are an unnecessary expense. "Then comes the Lucifer Match to supply the want," Knight says cheerfully, "to light the candle to look in the dark cupboard – to light the afternoon fire to boil the kettle"

(57). The cheap and regular supply of matches dispels fears of wastefulness, and when matches fail, which they sometimes do, their low cost does not make that failure feel dear (57). So, Knight concludes, matches "are freely used, even by the poorest" (57). In the span of twenty years, matches had ousted the tinder-box and become a ubiquitous feature of everyday life regardless of one's socio-economic status.

Knight depicts the match's relatively frictionless ascendency as the preferred lighting technology. While the match did not wholly replace old technologies, for Knight admits that "[t]he old dynasty of the tinder-box maintained its predominance for a short while in kitchen and garret, in farmhouse and cottage" (55), it is clear that the match became a crucial part of material and consumer culture. In one of Knight's concluding paragraphs, he announces that the boxes of matches are papered and made ready for a retailer, entering the consumer market with the colorful images that Briggs describes when claiming that both pins and matches "make images." Knight's article demonstrates the ways in which imagery and narratives accumulated around the match as a hinge between craftsmanship and industrialization, as an emblem of modern efficiency, and as a symbol of an ethically sound manufacturing life. Nowhere in Knight's account of Chemistry's ingenuity and the factory's triumph is there a mention of phossy jaw or the other dangers of matchmaking, an oversight that would be addressed in Henry Morley's "One of the Evils of Match Making," an article published two years later in another issue of *Household Words*.

According to Morley, the first reports of phossy jaw appeared in an 1848 issue of *The British and Foreign Medico-Chirurgical Review*, but the disease had been observed

prior to that year in Germany (152). That means the first reports of phossy jaw, a phrase that described the devastating necrosis of match-factory workers' jawbones and facial features caused by exposure to phosphorous, appeared in the same year that Andersen's "Little Match Girl" was first translated for British audiences. Perhaps the sympathetic portrayal of the match girl that readers had come to expect from Andersen's fairy tale prompted Morley not to linger on the horrifying accounts of phossy jaw for too long and to instead reassure readers about modernizations in factory life that prevented phossy jaw and that even created a supposedly cheerful atmosphere. However, before turning to these colorful depictions, we will first focus on Morley's investigative report of phossy jaw cases in British factories.

Morley's article begins with bleak candor, stating that phossy jaw results in "[o]ccasional deaths…but commonly there is no more than great suffering for a certain time, and then a permanent and grievous disfigurement" (152). In order to illustrate these physical horrors in prose Morley's correspondent interviewed three employees, all in their early twenties, who could personally describe the "great suffering" and their eventual "grievous disfigurement." The three stories have distressing similarities: an increasingly painful toothache that began three-to-six years after the employees' first exposures to phosphorus, followed by teeth extractions and the removal of pieces of their jaws. All three interviewees were published under falsified names. One interviewee, Robert Smith, a dipper, had "no teeth in his lower jaw, of which a great part is destroyed," and he knew of fourteen fellow workers who had the disease, including two who had died (153). Phosphorus had also decimated the jaws of the other two employees

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interviewed even though they were not directly in contact with the phosphorous dipping process: Annie Brown, who placed lids on matchboxes, and Maggie Black, who sorted matches. Black's jaw was "nearly gone" after five operations, and though "the oval shape of her face [was]…destroyed," Morley notes that "her upper features show that she would be by nature a good-looking girl" (153). In addition to suffering from shared physical ailments, all three employees reported similarly haunting scenes from living and working in phosphorus dust: clothes and limbs that glowed in their bedrooms at night, factory walls that would "glow after the gas has been put out," and phosphorus fumes and dust that penetrated rooms in homes too closely situated near the factory (153).

Yet for all of these terrible physical effects that resulted from unsafe working and living conditions, the "evil" mentioned in Morley's article is the phosphorus itself, deflecting blame from the manufacturers themselves. Once having addressed these evils, the article continues to explain how manufactories have since instituted innovations to prevent this kind of disease, such as: creating larger work spaces with more ventilation; housing phosphorus in buildings removed from other buildings; constructing one-story buildings that release fumes into the open air; and implementing alkali washes to remove phosphorous from hands and arms. The Bell and Black factory, Morley reassures his readers, did not have any current instances of phosphorus disease, due in part to the precautions that they have taken and due to the "improved matches of the present day" that use less phosphorus than "the old-fashioned cheap matches" (154).

Morley's descriptions of old and new matches parallels the larger discussions about lighting technologies that ascribed symbolism to types of fuel, such as the greasy

tallow candle and the clean-burning gas lamp. The match works as a narrative technology to allay fears, to reconcile the apparent split between domestic and commercial spaces, and to paper over the value-laden fissures between domestic, commercial, and manufacturing spaces. The article continues this tradition while offering the reader more appealing imagery to consume: the white wax used in vesta matches instead of the necrotic white phosphorus dust. Morley's article culminates in a description of "our polite and familiar friends the Wax Vestas, hung ignominiously head downwards" (154). Morley praises the Vestas as an emblem of the clean manufacturing process as well as their own clean-burning flame. He describes them as members of "polite society" and "delicate white creatures, the Vestas" (154). Their cleanliness is amplified by the Christmas adornments that decorate the factory room and the "young girls, …noticeably clean and neat," who attend to the matches (154). Extending the connections to the goddess Vesta even further without causing any apparent conflict with the Christian décor and message, the writer remarks that

> [t]he young priests of the temple of the wooden lucifers were boys and girls, some tidy, some untidy, according to their tastes and means. Here no unclean touch is suffered to pollute the pure white of the wax that is to maintain the vestal fire in English houses. The girls in this room all look very cheerful, very healthy. (154)

These modern vestas, the match factory girls, attend to matches and industrial processes rather than sacred fire, and they appear pristine compared to the employees suffering from phosphorus disease in the article's earlier paragraphs. No doubt the rhetoric of this passage traded on larger discussions of cleanliness to allay fears of disease, but it also relies on the Roman history of virginal attendants at the Temple of Vesta. The vestal

association with virginity recast the relationship between manufacturer and consumer as sacred; it purified the commercial exchange between manufacturer and consumer, allowing match buyers to remember these visions of cleanliness as they strike matches in their own home, relaying the "vestal fire" into their "English houses."

The history of Roman vestal virgins offered a poetic resource to enliven a portrait of industrial processes, but it also offered a means to purify the industry as the latest iteration of a sacred duty. Instead of pagans tending to flames in a temple, Christian girls, clean and unthreatening, dexterous and orderly, tended to a manufactured fire that remained dormant and sorted into rows and boxes until withdrawn and ignited on command. The anachronistic reference, in addition to engaging the reader's attention and selling copy, provided a starched clean alternative to the troubling figures of the match girls who sold matches in the street and who were, building from Koven's analysis, unregulated, perceived as unclean, and circulating in the same commercial spaces as tradesmen and prostitutes; even more alarmingly for mid Victorian values, match sellers were possibly trading more than just matches (79-80). The overt references to the factory workers' as children and young women sells their innocence "as a consumer product, an article to possess, as a promise to the righteous and the reward to the dutiful" (Kincaid 15). The purified production and consumption of wax vestas, though erotically charged, remains uncontaminated by commerce in trade and sex.

Though Knight's narrative relied on imagery as well, it was more invested in the statistical and logistical information of match making whereas Morley's article demonstrates not just a series of factory innovations or an exchange of money for goods,

but the active consumption of imagery and narratives associated with particular match brands. For Morley, the manufacturing processes involved in creating wax vestas implies that the primitive element of fire can be improved through industrial innovation and purified with recent factory reforms. The vesta match creates a more immediate link between the domestic hearth and perceptions of natural fire, calling to mind its Roman origins, but packaged in a Christian, clean, and updated factory before being exported to the consumer. The remaining wax from the previous day's manufacturing, for example, is referred to as a "bride-cake," composed of spermaceti "and other, cleanly and hard materials" (154). There is no contest, then, between wax vestas and imitations "made with a cheaper composition; in which there is much tallow, and these conduct themselves in hot weather after so dissolute a way, as to bring the vestal name to discredit" (154). Building from Anna Henchman's analysis of tallow as the residue of animal fats and the reminder that we, ourselves, are capable of burning like a tallow candle, which she grounds in a reading of Krook's greasy spontaneous combustion in *Bleak House*, the tallow imitations of vestas were unable to conjure images with pleasing semiotics that connected waxen whiteness to cleanliness, purity, and vestal virginity. As Henchman has argued, the tallow candle was greasy and too much associated with animal bodies, and the imitation wax vestas made from lower quality wax were perceived as too similar to their tallow counterparts, emblems of tasteless and inferior consumption.

While Knight's article celebrated the democratization of Lucifer matches, which he also described as high quality matches, Morley's article reestablishes a hierarchy of taste. As with Knight's observation that summer months often correlate with an increase

in the consumption of Lucifer matches, Morley observes that though vestas are still too dearly priced to replace central fires for impoverished households in the summer months, they continue to be used "by those who can afford to be more dainty" (155). Though a more rarefied commodity, they are still quickly consumed and easily expendable. In wealthier homes, vesta consumption is "trebled" in the summer months, which Morley explains stating, "The lady who, to seal her letter, lighted a taper at the fire in winter, seals her summer correspondence by the aid of vesta-matches. They are the substitute for the domestic fire in lighting lamps and candles…[for] those who are comparatively rich" (155).

After the bleak description of phossy jaw, Morley's characterization of the factory trades on imagery associated with the diminutive, charming, and fanciful. Published a few decades before the Bryant and May match factory strike in the 1880s, Morley's article compared the accidental conflagrations or flare ups that would occur as workers sorted matches into boxes or as shoes trod on dropped matches to Lilliputian fireworks, disavowing the very real dangers of highly combustible materials. Morley describes "[a]n incessant snapping," retorts produced from the swift sorting of the matches, an action so dangerous that some vestas burst into flame "at the quick touch of the maidens' fingers, and would like to punish them if possible" (154). The snapping also comes from the effect of feet treading on dropped matches: "bad as it is to tread upon the fallen, we confess that we ourselves produced two or three vindictive explosions on the part of vestas which our feet unwittingly tormented" (154). The overdetermined combination of women, girls, and matches continues:

> Of the vestas, however, as of other beings who are too quick in their temper…[t]hey are put out and laid aside, and nothing more is thought about them. A little heap, consisting of the corpses of angry vestas, who have thus been brought to confusion and disgrace…. No instance seems to be known in which the whole frame of a society of vestas is shaken by a simultaneous explosion. Any outburst of that nature could be easily suppressed…. (154)

The language of combination, combustion, and suppressed explosions offers a poetic foreshadowing, albeit unintentionally, of the Bryant and May strike. These match-girls, and matches who are girls, would go on to form a large society, shaken by neglect and untenable working conditions, and their anger and power of combination would lead to explosive reforms.

An expository piece on the improvements made to manufacturing Lucifer matches in an 1865 issue of *Mechanics Magazine* lends further credibility to the claim that matches were part of larger discourses of machines and technologies by aligning matches with progress, industry, civilization, and increasingly safety. Published six years after Darwin's *Origins of the Species*, the article attempts to reconcile the narratives of progress with the horrific tales of phossy jaw by comparing the Lucifer Match to a "rude" and "imperfect" species that is still developing and, consequentially, still improving. Prior to these advancements, "the primitive, clumsy, complicated tinder-box, flint and steel, and common brimstone match [were] the only media from the blackness of nature's darkness" ("The Fairfield Lucifer Match Manufacture" 166). The modern match is a medium between darkness and light and, as this writer suggests through a richly symbolic parallel, between primitiveness and civilization. The quality of lighting had improved so tremendously in such a short amount of time that "the whole vocabulary of surprise might

be exhausted," the writer remarks, "in contrasting the common tallow candle of the last generation with those splendid substitutes for sunshine which gas and lime-light now supply" (166). Though the writer acknowledges other lighting innovations, Bryant and May are the heroes of this article's narrative because they created the modern "safety match" that protected consumers and that prevented phossy jaw, a characterization that aligns the industrialization production of safer and more efficient matches with Britain's national identity (166).

Andersen's "The Little Match Girl"

It is into the mid nineteenth-century British cultural milieu that Hans Christian Andersen's little match girl first entered, approximately thirty years after gas lamps began illuminating London's streets and within the first decade that gas lighting was becoming more widely adopted in domestic spaces. "The Little Match Girl" was published in Danish in 1845. One year later, Mary Howitt introduced Andersen to British audiences by translating *Wonderful Stories for Children*. English translations of "The Little Match Girl" first became available in 1847, and Charles Boner published English translations of both "The Little Match Girl" and "The Old Street Lamp" in his 1848 collection *The Dream of Little Tuk, and Other Tales*, one year after Andersen infamously overstayed his welcome while visiting Dickens in London.[9] Boner's translation featured four illustrations by Count Franz Pocci, including a frontispiece of the pitiful little match seller, in the same year that British audiences were first learning about match factory girls

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[9] Tatar provides some details about this visit, p. 349. Koven discusses the publication history of "The Little Match Girl" on p. 81.

suffering from phossy jaw, resulting in two sympathetic narratives about match sellers and match-makers circulating simultaneously.

One particularly striking thing about Andersen's tale is its seemingly anachronistic nature despite mid-Victorian England's intense attention to detail about the match industry. Mayhew's history, for example, carefully distinguishes the types of matches – brimstones, Congreves, and Lucifers – and types of match sellers on London streets. The taxonomy of matches would later become a crucial plot point in *The Silver Blaze* (1892) when Sherlock Holmes solves a mystery after finding a half-consumed vesta matchstick. The match girl, however, remained ubiquitous and amorphous. Though the tale is Danish, she fit into England's mid-century sympathetic tales of the working class and the poor. Similar to Dickens's socially conscious *Christmas Carol* (1843), Anderson's fairy tale presents a sympathetic tableau of a neglected match seller who freezes to death on New Year's Eve in order to inspire change in commercially driven middle-class readers who fail to care for the wellbeing of impoverished communities.

Andersen's fairy tale of the little match seller demonstrates how the match operates as a media technology by facilitating multi-sensory perceptions that would not have been produced by mechanized animation devices that concealed and enclosed the source of illumination. At first she lights a match to provide a glimmer of warmth, a feeble attempt to warm her fingers, but the ignited match becomes a source of wonder as the light conjures the image and warmth of an old stove. She lights a second match after the first expires, and it makes the nearby brick wall transparent so that she can see and smell a fantastic dinner table complete with a cooked goose that, in an even more

fantastical scene, becomes reanimated and waddles towards her with a fork and knife still

plunged into his breast. With the lighting of the third match she finds herself sitting

beneath a Christmas tree, and each of the glimmering tapered candles on the tree add to

the visual splendor by showing her pictures. A fourth match shows her grandmother in

heaven, and the little match girl then strikes a whole bundle of matches so that the image

of her grandmother does not fade. All of the matches are forms of wish fulfillment,

beginning with the basic necessities – heat and food – that the girl so desperately needs,

but they are also a transformative means of viewing. In the conclusion, the grandmother

transports the girl to heaven, and her body is found frozen to death near her spent

matches the next morning.

The images that appear when the girl lights her matches do not merely resemble

other forms of media technologies, such as the magic lantern's dissolving views; the

images demonstrate how the match negotiates between old and new media technologies,

between the associative images of fire-gazing and the pre-fabricated images of

mechanized entertainments. In both public and private magic lantern shows, the source of

the illumination is concealed. During public shows, the lantern itself may be concealed

beneath the stage, behind a screen, or, once lighting technologies improved sufficiently

for magic lanterns to project images across great distances, behind the audience.

Domestic audiences using toy magic lanterns would, of course, have had more access to

the source of the illusion. In the *Guide to Buying and Owning a Magic Lantern* narrated

by a "mere phantom," consumers learn to distinguish between different forms of light and

are instructed on how to produce the chemical reactions necessary for projecting different

types of images. In Andersen's fairy tale, however, the match flame is not concealed from the match girl or the reader, and the images that form enhance the multi-sensory tangibility of the flame.

In the first image, the substance of fire does not dissolve into the image of a stove. Instead, its "warm, bright light, like a little candle" imaginatively transports "a large iron stove, with polished brass feet and a brass ornament" to the corner in which the girl sits (Andersen 257).[10] The multisensory immersion would not have been possible if the source of illumination had been an enclosed beam of light removed from view. In an unexplained moment of magic possible only in fairy tales, the match's flame radiates the heat of the stove in a way that is both felt and seen. The girl "stretched out her feet as if to warm them, when, lo! the flame of the match went out, the stove vanished, and she had only the remains of the half-burnt match in her hand" (257).

The second match emphasizes visual transformation over other sensory experiences: "It burst into a flame, and where its light feel upon the wall it became as transparent as a veil, and she could see into the room" (Andersen 257). The translucent wall discloses the contents of a "splendid dinner" with "a steaming roast goose, stuffed with apples and dried plums" (257). Neither the warmth of the domestic space nor the tantalizing smells are described for the reader, perhaps counting on them to remember the "savoury smell of roast goose" that is briefly mentioned at the beginning of the story as the girl wanders through the streets cold and hungry (256). The scene becomes more

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[10] All parenthetical citations for "The Little Match-Seller" refer to *Hans Andersen's Fairy Tales with a Special Adaption and Arrangement for Young People* (1867) translated by Mrs. Paull.

wondrous still when "the goose jumped down from the dish and waddled across the floor, with a knife and fork in its breast, to the little girl" (257). The startling transformation from inanimate to animate, or in this case from dinner to waddling entertainment, is a feature of any animation technology, inviting the viewer to marvel at the transformation. However, the match's open flame and its projected light visually connects the images that appear to the substance of fire itself, and the former appearance of the iron stove works to connect the match to the kitchen fire and consequentially to the roasted goose. By connecting the kitchen fire to the media entertainment, the scene operates according to the logic of a shared central fire, which matches both facilitated and replaced as fire was separated into different materials and means for light, heat, and cooking.

The third match is more immersive as the girl suddenly discovers that she is "sitting under a beautiful Christmas-tree" (Andersen 257). The Christmas tree in this episode is not an emblem of a domestic, family space, but is immediately connected to commercial spaces. The girl recalls seeing trees "through the glass door at the rich merchant's," but this one is much larger with "[t]housands of tapers…burning upon the green branches, and coloured pictures, like those she had seen in the show-windows, looked down upon it all" (257). This fantastical scene evokes the early days of gas lighting in public spaces, which allowed for late night shopping or for the admiration of the gas light reflecting on the glass window pane. This form of wish fulfillment, rather than addressing a physical need, speaks to the desire to visually consume. The match's flame is multiplied into thousands of tapers, and as the narrator describes the visual spectacle, they reveal other scenes when the girl looked through windows into shops that

she could not enter and at merchandise that she could not afford. The visual spectacle of firelight here pivots between two time periods, recalling an era previously illuminated by multiplied candlelight while also describing an experience that would have sounded familiar to Andersen's early readers: the spectacular illumination as gas flames glowed through and danced upon panes of commercial glass in public spaces.

Inexplicably, part of this vision does not disappear immediately when the match flame goes out. Instead, the "Christmas lights rose higher and higher, till they looked to her like the stars in the sky" (Andersen 258). The match's flame has transcended its material limitations once again, but this time it exceeds the boundaries of the Earthly and rises to the heavenly. The fourth match envelops the girl in light and she can see her "old grandmother, clear and shining" (258). Knowing that her grandmother "will go away when the match burns out," the girl begs to go with her, and "light[s] the whole bundle of matches" (258). In a move that is both fantastical and prescient about the role artificial light will play in the eradication of night, "the matches glowed with a light that was brighter than the noon-day, and her grandmother…took the little girl in her arms" to fly towards heaven "where there was neither cold nor hunger nor pain" (258). Here the match connects the material world with the fantastic, retaining Christian overtones while conveying transformation through the material combustion of the materials.

When dawn breaks, the narrator criticizes the people who find her for two kinds of failure. First, and most importantly, for overlooking a fellow human being who froze to death in the cold. The girl's transcendence is similar to other pathetic figures of girlhood in literary history: Maria Tartar compares her to Little Nell in *The Old Curiosity*

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Shop and explains that the girl's inability to sell matches was inspired by Andersen's mother's experiences as an impoverished child (note 7, 217). The second failure, though, relates to imagination and to media literacy. When the city dwellers discovered her lifeless form holding a bundle of burnt matches, they guessed that she had tried to warm herself, but "[n]o one imagined what beautiful things she had seen, nor into what glory she had entered with her grandmother, on New year's day" (Andersen 258). In addition to the moralizing overtones, which were to be expected of mid nineteenth century children's literature, the city dwellers' failure to imagine that she had seen beautiful pictures can also serve as a reminder of what is lost when old media technologies disappear. In an era of artificial light and mechanized entertainments, the people in the story have forgotten how fire conjures images and how the match – a mundane, ubiquitous, and overlooked tool – is wondrous. In reading the story, however, the reader can join in the imagination of the little match girl. The primitive technology is available only to the overlooked, a theme that I discuss in the previous chapter when analyzing Lizzie Hexam's fire-gazing in a novel that compares visual and textual literacies.

Andersen's "Old Street Lamp"

Andersen's "Old Street Lamp," a fairy tale about a sentient oil lamp that fears its eventual obsolescence, was published in Denmark in 1847 and translated for English readers by Charles Boner in 1848 during the early decades of gas lighting's increasing popularity. The street lamp represents a more intimate and magical form of light threatened by industrialization and evocative of other fantasy narratives. As Maria Tartar

has noted in relation to another of Andersen's fire-based fairy tales, "The Tinderbox,"
"Andersen thought of himself as an Aladdin figure," and he once said that his writing was
a kind of magic "'lamp [that] shines out over the world'" (158). The street lamp in the
fairy tale only conjures pleasurable associations of the street lamp's role in ensuring
public safety and, given the fairy tale genre, avoids the more troubling contexts of urban
streetlight that Schivelbusch recounts in his history of industrialized light. In late-
eighteenth century Paris, for example, lanterns were often broken by drunken passersby
and gained a more macabre association as the sites of grisly hangings during the French
Revolution before the guillotine provided a more expedient form of execution
(Schivelbusch 97-105). Eschewing these unsavory histories, the Danish imagery of the
old street lamp resonated with mid-Victorian anxieties about the early decades of
gaslight. As the tale was included in later editions of Andersen's tales throughout the
century, it continued to evoke fears of modernization that accompanied industrialization.
The conversations surrounding innovations to heat and light that did not blindly subscribe
to positivist narratives of progress compounded larger concerns about innovation and
obsolescence because of the symbolic values that accumulated around various sources of
firelight. Andersen's oil street lamp, while an emblem of public safety in the story,
presents a more romanticized image of light and dark than the "intrusion of daytime order
and the rational space" that Lynda Nead and other scholars have associated with gas laps
(*Victorian Babylon* 83).

The eponymous oil lamp in the fairy tale laments that it will soon be retired from
its dutiful illumination of urban thoroughfares and may be sent to an iron foundry to be

melted down and repurposed; "what worried him was that he did not know whether he would then be able to recall that he had been a street lamp" (313). The personified figures of the wind and a star feel pity and bestow gifts upon the lamp: a sharper memory and an enhanced, celestial form of illumination that, imbued with visions gained from the star's heavenly height, can produce telescopic and animated views of distant lands. The next day the elderly watchman and his wife, who are translated in some versions as "the old lamplighter" and his wife, rescue the lamp and bring it into their home. Illustrations in later editions help clarify that the entire lamppost is not reclining awkwardly in the couple's home; they detached the glass-caged lantern from its post and ensured its comfort by setting it upon an armchair as if it were another family member.[11] The lamp's problems continue, however, once it realizes that it cannot share its newly acquired celestial light without the aid of a wax candle, and it begins to worry about its fate once the elderly couple pass away. Unlike so many of Andersen's fairy tales that end in tragedy, this one concludes with a promising prognostication of the lamp's future: a dream reveals that the foundry is the lamp's eventual destination, but its memories will not melt away during the process of transformation. Instead it will become a candlestick and placed on the desk of a poet who will appreciate and use the lamp's abilities. What may appear as nostalgia for an old street lamp that symbolizes an earlier time before industrialized light is actually a more nuanced tale about new ways of seeing that result

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[11] See the particularly charming illustrations prepared by E. H. Wehnert, W. Thomas, and others for the tale in *Andersen's Tales for Children*, translated by Alfred Wehnert, New York, D. Appleton and Co. Broadway, 1861. This translation also clarifies that the lamp may be melted down in an "ironfoundry" (271).

from the convergence of old and new technologies. Most importantly, print media

remains central to creating these wondrous animated images.

The fairy tale begins by staging a luminosity competition between the old lamp

and other forms of reflected light, a visual duel that was a hallmark of media

entertainments. In the next two chapters, for example, I analyze the narrative descriptions

that contrast moonlight and fire in periodical reports of the 1834 Parliament Fire and in

advertisements for the 1880s pyrodramas that portrayed Vesuvius with live fire and

pyrotechnics. In Andersen's tale, the oil lamp knows that modern gaslight will succeed,

but it first contends with some ridiculous candidates lying in the street near its post: the

reflective head of a herring that boasts its reflective surface will "mean a great saving in

oil," a piece of "dry rotten wood" claims it would "glow…a lot brighter than an old

codfish," and a glowworm who does not get a chance to parry the herring and wood's

protests that the worm does "not glow all the time but only when it had fits, which out to

disqualify it" (315).[12] These would-be contenders emphasize the hierarchy of high and

low forms of illumination, appearing in the lowest spatial plane of the story in stark

contrast to the heavenly gift of starlight, which arrives in the form of a falling star that

"mak[es] an arch of fire" before landing directly in the old street lamp (316). This

celestial fire imbues the lamp with the ability to share visions of anything that it

remembers and anything that the lamp can imagine with its loved ones (316). Of the more

whimsical contenders, the wood is a more obvious source of light than the herring or the

glowworm, but in addition to its imperfect condition, it represents an older form of

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[12] All parenthetical citations for "The Old Street Lamp" refer to *The Complete Fairy Tales and Stories* (1974) translated by Erik Christian Haugaard.

illumination technology. By the end of the tale, the wood's ability to glow, like the

lamp's oil and the couple's tallow candles, are characterized as inferior illumination and

animation technologies when compared to wax candles and celestial light.[13]

The story features different types of illumination alongside different ways of

creating and consuming images. The old oil lamp, transformed by the gift of celestial fire,

needs only a wax candle to unlock what it describes as "a whole world within me" (318).

However, it is limited by the couple's economic status and their use of lamp oil and

tallow candles (317). The old watchman and his wife live a cozy but animated existence.

Though they spend their evenings by the stove, they set their sights on times and lands

beyond by decorating their house with "a large colored print of *The Congress of Vienna*"

and with two elephant-shaped flowerpots, which were gifts from their sailor neighbor

who had traveled to either "the East or the West Indies" (317). When the old man reads

aloud from travel books about Africa, his wife looks to the elephant flower pots and says,

she "'can almost see it all'" (317). Their appreciation for virtual travel mediated through

visual representations is checked by the limitations of old media – print, narrative, and

ceramic – and by their socio-economic status. The ceramic elephants are a rough visual

aid, an approximation in comparison to the rich imagery that the lamp can see when he

listens to the old watchman reading:

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[13] According to the National Candle Association website, in the 1820s Stearin wax candles were produced by "extract[ing] stearic acid from animal fatty acids," and stearin wax "was hard, durable, and burned cleanly." The mass production of molded candles, made possible by a machine invented in 1834, resulted in lower candle prices and more widespread availability. A further innovation occurred in the 1850s with the introduction of paraffin wax candles. See http://candles.org/history/ for more details.

> How much the old street lamp wished he had a lighted candle inside him! Then the old people would be able to see it all just as he envisioned it. He saw the tall trees growing so close together that their branches intertwined; the naked natives riding on horses; and herds of elephants tramping through the underbrush, crushing reeds and breaking saplings with their great broad feet. (317)

The remarkable lamp, made more extraordinary by the gift of starlight, would enhance the couple's virtual travels, but not knowing that such a rare viewing device sits near them in an easy chair, the couple are content with their imperfect approximations. Even when they finally come into possession of "a whole handful of wax candle stumps," they do not think to place the wax candles in the old oil lamp (318).

When the lamp articulates its abilities, it uses language that invokes both new and antiquated technologies. It claims, "'I could decorate these whitewashed walls with the most splendid tapestries. They could see the richest forest…. They could see anything they desired; but alas! they do not know it'" (318). The whitewashed walls could become a projection screen for the lamp to operate in ways similar to a magic lantern, an external projection of the couple's desires that could improve upon the convincing illusions offered by contemporaneous theatrical phantasmagorias that used painted glass slides, mechanical parts, and a lanternist's dexterity to simulate movement or to create dissolving views. To convey the artistry and skill of its abilities, the lamp also appeals to an older form of media, the woven tapestry, an intricate, textured, and lush picture-making technology that offered rich details that would have been impossible to achieve with early nineteenth century magic lantern slides.

The processes of material transformation and enhanced visual technologies continue in the fairy tale's conclusion and evades the tragedies one normally expects of

Andersen by revealing that the lamp will become a candlestick and will aid a poet in the production of superior print media. The lamp realizes its future potential on the evening of the watchman's birthday after the couple, who "truly loved the lamp," had filled it with oil once again and lit it as part of the birthday festivities. Later, after burning all evening, the lamp's future is revealed in its dreams: it will be sent to the foundry once the old couple die and reborn as an ornate candlestick "in the shape of an angel holding a bouquet of flowers" (318). The lamp's transformative journey is only complete once the lamp, now in the form of a candlestick, is set upon a poet's desk, and the dream suggests that the lamp will produce images in tandem with the poet:

> All that the poet thought, imagined, and wrote down seemed to exist within the room. The dark solemn woods, the sunlit meadows where the stork strode, even the deck of a ship sailing on the billowy sea.
> "What a gift I have!" said the old lamp. (218)

These Romantic images of nature co-exist with the paintings and books that decorate the poet's bourgeois room, and it is implied that this richness of imagery exists, in some form, in the print media – in the poetry produced under the light of the transformed old street lamp and, perhaps, similarly conveyed through the print medium of Andersen's fairy tales. Instead of simply augmenting the imagery of the old couple's travel books, the lamp and the poet will infuse print media with animated vision borrowed from celestial starlight, a fantasy of translating inspiration and artistic talent into the material forms of candlelight and print media.

The fairy tales shows how print media, when produced by a poet with the aid of an old lamp infused with celestial fire, is a superior means of conjuring hallucinatory moving images and the wide-ranging scopic pleasures of starlight when compared with

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illustrated prints of historical events, ceramic flowerpots, or the dissolving views of lantern shows. Blessed by wind and starlight, the lamp is gifted with memory and an expansive, celestial vision that can animate dreams. The old street lamp's tale is emblematic of how firelight became a medium for memory and innovations in animation in the nineteenth century since outmoded forms of firelight generated nostalgia and preserved cultural memories while gas-lit fires represented modernity, progress, and industrialization.

Conclusion

The match and the street lamp as instruments of the imagination are not mechanized, but they are materially, symbolically, and narratively connected to emerging forms of media entertainments in the nineteenth century. In Charles Boner's 1848 translation of Andersen's fairy tales, "The Old Street Lamp" precedes "The Little Match-Girl," and both stories illuminate how the old street lamp and the match's image-making capabilities that were not perceived by the other characters: the old couple who adopt the lamp are unaware of its magical vision, and the people who find the little match seller mistakenly think that she lit the matches for warmth. Both the lamp and the match demonstrate a collaborative interplay with between firelight, readers, viewers, and writers: the old lamp announces its participatory nature, wanting badly to animate the couple's thoughts and then, later, exclaiming "What a gift *I* have!" after a passage that narrates the "*poet's* every thought," and the matches, an extension of the girl's desires, do not conjure the images by themselves. The lamp and the match are overlooked figures in

media history because they are relics of outmoded illumination and are associated with children's stories. However, these instruments of the imagination are part of the genealogy of fire-gazing, including the moving images that come in go in the hollow down by the flare of the Hexam fireside, and the images that appear through Leigh Hunt's careful fireside maintenance and that are later remediated into print. Andersen's fairy tales participate in the print remediation of fire at a time when the very materials he was writing about, the match and the street lamp, were undergoing material transformations and innovations.

Chapter 3
Burning Down the House in 1834:
Spectacular Fire and Live Audience Spectatorship

On 16 October 1834, the houses of Parliament were burning. Tens of thousands of uninvited spectators gathered to watch the blaze, yet remarkably, and to the relief of every official involved, in relative silence. Periodicals represented the throng of witnesses in dramatic and contradictory terms: a solemn crowd mourning a national catastrophe, or a mob invoking the ghost of Guy Fawkes while cheering the incineration of the recent Poor Law Amendment Act. Among the crowd were Thomas Carlyle, Thomas Hood, Letitia Landon, and J.M.W Turner, and Mary Shelley described the view of the fire from her bedroom window as "raging like a volcano".[1] The brilliant light illuminated the dark thoroughfares of London and, by some accounts, made it possible to read fine newspaper print nearly a third of a mile away.[2] The crowds became a live audience for an unintentional media spectacle, and readers gained a sense of immediacy through the newspaper coverage in the subsequent days and weeks. The burning of the Houses of Parliament presented an opportunity to consume a national disaster and assembled an ungovernable crowd of uninvited spectators who were not wholly subjected to the implicit social instructions of historic media entertainments.

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[1] The volcano is "raging" in Marshall's 1889 edition of *The Life and Letters of Mary Wollstonecraft Shelley* (263), but Morrison and Stone transcribe the line as "burning like a volcano" in their 2003 *Encyclopedia of Mary Shelley* (390)

[2] This specific reference is quoted in Caroline Shenton's *The Day Parliament Burned Down* (88), but the fire's ability to illuminate "the small print of the Police Gazette" is also referenced in one report appearing in Thomas Hood's *Comic Annual* (17).

Media entertainments, such as panoramas and pleasure garden fireworks displays, had accustomed audiences to pyrotechnics, but those thrilling effects were meant to edify as well as to entertain. The 1834 conflagration, however, marks a turning point in disaster live audience spectatorship because the crowd indiscriminately consumed a national disaster as entertainment: at the time of the fire, in periodical reports and literary annuals, and during historic media adaptations. The 1834 fire lent itself to media adaptations because of the theatricality of the event: the startling details of the flames, heroic tales of Members of Parliament running across roofs that were about to collapse, and accounts of hurling government documents from the flames into the crowd. The recently centralized firefighting brigade and their new firefighting technologies, the extendable ladder and a water hose aboard a steam powered boat, added to the novelty of the event, as did the boat's struggles with the uncooperative tides of the Thames that prevented it from dousing the flames.[3] Drawing from primary documents, Caroline Shenton, an historian and former Director of the Parliamentary Archives in London, highlights contemporary depictions of the fire as a theatrical event, and she describes the fire's latent, proto-cinematic qualities (110). I build from her argument by continuing to demonstrate that fire itself is a media technology, by interpreting the fire as an unprecedented display of

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[3] James Braidwood, the first director of London's centralized firefighting brigade, participated in periodical coverage of the fire by writing letters to editors clarifying the facts of the fire. His career began shortly before the Parliament fire and ended with his death at the 1861 Tooley Street fire. A 1907 volume of *Notes and Queries* explicitly connects James Braidwood, firefighting, and mid-century nationalism: "At this period (it was during the war in the Crimea) the fire engines were largely worked by volunteers from the crowds assembled, and the mean sang popular songs as they pumped. When it was seen that the fire was being subdued they would all join in 'Rule, Britannia,' closing with 'God save the Queen,' amid hearty cheers, when the fire was extinguished" (144).

illumination on a metropolitan scale before the widespread adoption of gas street lights, and by more thoroughly examining the fire within its print and visual media environment.[4] Firefighters and urban conflagrations continued to be popular subjects in late nineteenth century entertainment media in Britain and America; Lauren Rabinovitz has studied firefighters in relation to media attractions at Coney Island's Luna Park, and Charles Musser has examined the fireman in relationship to early cinema.[5] Older forms of media, like paintings, also featured firefighters as a new subject of fascination, as Nancy Rose Marshall has demonstrated in her analysis of John Everett Millais's *The Rescue* (1855).[6] Returning to the period contemporaneous with the 1834 fire, it immediately became apparent that there was a widespread desire to recreate the fire in an entertaining and immersive spectacle: Charles Marshall's diorama at Victoria Theatre, for example, debuted one week after the fire, reportedly before the ashes of the ruins had even cooled ("The Late Fire," *The Times*, 24 Oct. 1834, 2). This event ushered in the Victorian era and showcased an enduring fascination with the aesthetics of firelight and the affective relationships that form around it.

Unsubstantiated rumors of arson furthered the media spectacle by providing additional fuel for dramatic periodical reports. Fears of incendiarism invoked the Parliament buildings' historical association with the gunpowder plot as well as

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[4] Unless otherwise noted, Shenton's chronological history of the fire, which synthesizes numerous primary documents, is my source for facts about the fire and the related Parliament inquest. She estimates that hundreds of thousands witnessed the fire (4).

[5] See Rabinovitz (58-59) and Musser (212-235).

[6] See "'Startling; Nay, Almost Repulsive': Light Effects and Nascent Sensation in John Everett Millais's *The Rescue*" published in *The Journal of Victorian Culture*.

contemporaneous concerns about radical politics. The arsonist who set fire to the York

Minster Cathedral just five years earlier had provided a recent precedent. Newspapers

compared the two fires, and the York Minster was also represented in paintings and

media entertainments, but *The Standard* reported that the Parliament fire was much more

impressive in size and effect: "Several persons who witnessed this grand though awful

sight, and who had also been spectators of the destruction of York Minster, declared that

the latter was, comparatively speaking, a small fire to the above much to be regretted

event."[7] The same article shows how the violence of the destructive fire heightened fears

of arson, especially when

> the roof of the Commons' House fell in, and made a noise like the firing of
> guns, which led to the greatest confusion among the assembled multitude,
> who were to be seen making desperate efforts to effect an escape, a cry
> being raised that a magazine of gunpowder had ignited, and was expected
> to blow up. (*The Standard* 3)

Given the explosive auditory effects and the parliamentary setting, some reports

speculated that the ghost of Guy Fawkes had returned to carry out his 1605 plot, whereas

other periodicals tried to capture the sublimity of the scene in poems and verse, but the

latter did not always achieve a satisfactory standard; at least one reader complained to

The Times that "[t]he verses on 'The Burning of the Houses of Parliament' are not very

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[7] A cosmorama representation of the "York Minster on Fire" was painted by Finley at the
Physiorama, Queen's Bazaar, Oxford Street, London, c. 1834 (Hyde 169). Also, all
references to *The Standard* in this chapter cite information from its 17 Oct. 1834 article
"Destruction of Both Houses of Parliament By Fire." I made this editorial decision for
concision and clarity because both *The Times* and *The Western Times*, referenced at
various points throughout this chapter, also published identically phrased article titles. All
three articles are distinct and are not reprints of an original source.

good" ("To Correspondents").[8] Alternating invocations of catastrophe and aesthetic

beauty appeared in reports of the fire across periodicals, and an advertisement for

Bulwer-Lytton's newly published *Last Days of Pompeii* on the front page of the *The*

Standard may have amplified the fire's associations with apocalyptic imagery for its

readers. The overwhelming force of the destructive fire hurried Parliament's official

inquiry into the fire's origins, which then became part of the media spectacle as

newspapers printed witness testimony and summarized discoveries for daily

consumption.

A fiery display and a crowd of spectators was exactly what government officials

had wanted to avoid when determining how to destroy the Exchequer Tallies. The

notched wooden tally sticks were used as records of payment between the twelfth century

and 1826; once the notches were made, the wood would be split into two tally sticks so

that both the debtor and the Exchequer had records of the payment (Solender 30). Heaps

of obsolete tallies had been moldering away and taking up valuable storage space, but no

one could agree on how to dispose of the official government records even though the

records were meaningless. One official recommended burning the sticks in a giant pyre,

but others voiced concerns about the inevitable crowd that might also spontaneously

ignite, too overly stimulated by their proximity to the flames and to each other, and these

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[8] Adding to the ubiquitous media coverage of the fire, this complaint appears below an advertisement for Marshall's diorama at the Victoria Theatre. The complaint most likely referred to a short poem published in *The Sunday Times* on 19 Oct. 1834, which also featured an illustration of the fire. One year later, the fire remained a popular subject for verse. In November 1835, *Tait's Edinburgh Magazine* dramatized the popular connection between Guy Fawkes and the Parliament fire by printing the poem "The Ghost of Guy Fawkes: or, the Confession of the Real Incendiary of Last Year!" (742).

fears outweighed the combustive efficiency of a bonfire.[9] Another more sensible

suggestion was also dismissed, which Charles Dickens later criticized in his 1855 speech

on "Administrative Reform," stating:

> it would naturally occur to any intelligent person that nothing could be
> easier than to allow [the tallies] to be carried away for fire-wood by the
> miserable people who live in that neighborhood. However, [the
> tallies]…had never been useful, and official routine required that they
> never should be, and so the order went forth that they were to be privately
> and confidently burnt. (133)

Eventually, officials decided to burn the tallies gradually in the newly updated furnace of

the House of Lords, which was connected to a series of heating tubes that ran beneath the

floors and behind the walls of the building. According to the testimony of the two

laborers who were tasked with feeding the tallies into the furnace, they burned small

amounts of tallies at a time from 6 a.m. until 6 p.m., were supervised only occasionally,

and stopped only when it became clear that the buildings were on fire. Further testimony

provided at the parliamentary inquest by witnesses who were in the House of Lords when

the fire broke out revealed that the tinder had overtaxed the entire heating system and that

the pipes running from the House of Lords furnace had overheated and caused the fire.

 Construction on the new Houses of Parliament would take decades, meaning that

the conflagration, and the subsequent and self-conscious refashioning of the buildings,

remained a present topic of conversation and occupied the daily visual imagination. The

burning of the Houses of Parliament structures the Victorian era – architecturally,

politically, and aesthetically. The fire became emblematic of the need to update

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[9] For additional details about the officials who debated the best disposal methods, see
Shenton pp. 15-16. It was the Clerk of Works who thought the bonfire "'would always
collect persons'" (qtd. in Shenton 15).

antiquated systems for many reasons, including the fact that Joseph Hume and others had been pressing for architectural reforms given the difficulties of sufficiently heating the buildings as well as the potential danger of the structures' ineffective fire protection. Hume's notoriety as a Radical MP resulted in at least one satirical cartoon depicting his arrest for intentionally starting the fire, linking his requests for architectural updates to a larger need for social reform following the Poor Law Bill and Chimney Sweep acts.[10] According to Harriet Martineau's description of the crowd on the night of the fire, "[i]n one place some gentlemen cried, 'Mr Hume's motion carried without a division'" (437). Periodicals mocked the notoriously ineffectual Parliament, contrasting its slow pace with the fast-moving fire. This event is a particularly rich case study that must be included in media history because it remained largely unscripted and was not a pre-fabricated entertainment, and yet it was consumed by witnesses at the time of the fire, readers of periodicals and literary magazines, and viewers of later media adaptations. Because later representations and adaptations shaped the fire according to more traditional rubrics for interpreting literary and visual media, the fire is an opportunity to examine an emerging media consumer and to think about nineteenth-century consumers' relationships with producing and consuming media.

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[10] See "Hume's Motion carried by a Flaming Division! A Sketch in Palace Yard," an 1834 lithograph in the British Museum's digital collections, Museum number: 2004,0430.10.

Live Media Audience and Picturing the Crowd in Periodicals

In 1834, fears about congregating crowds stemmed from fears of radical politics and revolutionary movements on the heels of the French Revolution and social unrest in England and France in the late eighteenth century. The Parliament fire falls between "the fledgling radical demonstrations of the teens" and the Chartist demonstrations in the late 1830s, the two primary historical periods in John Plotz's cultural history of crowds (1-2). My argument adds to Plotz's history of the multiple meanings of "crowd," a word used to label "chance encounters" with groups of people on the more populated streets of nineteenth-century London, "claim-making" groups of demonstrators and petitioners, and more "chaotic" assemblies governed by a mob mentality (1-2), by analyzing the charged representations of crowds that gathered at the site of a spectacular accident. Mary Poovey's understanding of economic, social, and political domains, and the emerging concept of a cohesive British national identity in the early 1830s (1), are helpful contexts for understanding the variegated demographics of the crowd, the tensions at the perimeter of the fire formed by the grenadier guards, the novel display of the recently centralized firefighting brigade, and the nationalist symbolism of the buildings. For Poovey, the 1834 Poor Law Amendment Act, and the following "disturbances [that] broke out in some parts of the south," inform the tectonic tensions along the fault lines of economic, social, and political domains (11-12). This chapter demonstrates how the 1834 fire connects with Poovey's and other scholars' efforts to relocate the emergence of mass culture, often associated with the increasing homogeneity of twentieth century visual culture (Poovey 4), to the nineteenth century. In the periodical coverage of the 1834 fire, the oscillating

depictions of the crowd as a homogenous mass or as a collection of individuals who were understood as plural and multiple reflect early attempts to visualize and comprehend the emergence of mass culture (see fig. 3.1).

The Destruction of the Houses of Lords and Commons by Fire on the 16th of Octr. 1834.

Fig. 3.1, Houses of Parliament Destroyed by Fire. Unattributed lithograph, image courtesy of The Mary Evans Picture Library.

The crowds that gathered on the night of the conflagration and the readers and viewers of later media adaptations are related to scholarly work on the concept of the crowd as an audience. As Jon P. Klancher has demonstrated, in the 1830s the steam-powered press facilitated the wide distribution of popular magazines and increased the circulation of literary print media among a more variegated demographic of readers. As a

result, the form and content of popular print media and the concept of audience mutually

constituted one another, and Klancher explains that the tendency to produce edifying

materials was, in part, an attempt to inculcate taste and to forestall undesirable

interpretations particularly with regards to the possibility of readers with radical

politics.[11] Patricia Anderson has further clarified that the new technological ability to

circulate sophisticated printed images enhanced the fomentation of mass culture because

even illiterate audiences could interpret the printed image. I build from Anderson,

Poovey, and Daly's analysis of how print media, mass entertainments, and industrialized

transportation resulted in an unprecedented level of contact between individual people

across social classes by showing how the 1834 Parliament Fire amassed an immense

crowd that became as astonishing to quantify and visualize as the towering flames that

erupted from the building. At the time of the event and in later periodical and theatrical

recreations, the event generated images and narratives that were not always conscripted

to familiar narratives.[12]

The burning of the Houses of Parliament was a live audience media spectacle, and

the crowds that gathered made it possible to visualize the multiple audiences and

interpretations that could form at the time of the event and in the later periodical reports

and entertainment adaptations. Readers followed reports of the fire and the parliamentary

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[11] According to Klancher, three sets of audiences emerged in the nineteenth century: "a newly self-conscious middle class, a nascent mass audience, and an insurgent radical readership" (15).

[12] Poovey provides a concise summary of these interactions, comparing the "technologies of representation" to other "technologies capable of materializing an aggregate known as the 'population,'" including the census, statistics, "transportation, cheap publications, and national museums" (4).

inquest in periodicals and literary magazines, and theater audiences participated in forms of mass media adaptations, including panoramas and dioramas. There were concerns about how the fire would be interpreted because the Parliament fire was an accident and the tens of thousands who witnessed it could delight in the sensational spectacle, associating it with pleasure garden pyrotechnics or other visual entertainments, instead of recognizing the event as a national disaster.

Periodicals communicated the facts of the fire with a sense of urgency, inquiring further into the details of the fire's origin and reckoning with the historical and national loss. The day after the fire, *The Times* stated that "[a]ll topics of ordinary, however extensive interest, must yield to one which has within a few hours been brought home to the senses of the people of this metropolis…" ("London, Friday, October 17, 1834" 2). The article's title focuses on not on the fire or on the buildings, but on the geographical location, date, and time, making that spatio-temporal point synonymous with the fire. The grave tone suggests that the *Times* imagines that the shocking news will require a multi-step procedure for receiving the news and processing it. One step in that process involved reconciling the fact that the "vast pile of building" produced by the fire had "just yesterday forenoon contained two Houses of Parliament," a physical transformation that might be difficult to process, but also a reassuring distinction that the ruined buildings and the institutional bodies of the Houses of Lords and Commons were separate and that the latter remained intact (2).

In reporting the facts of the fire as they became available, periodical coverage also created for readers, to the extent that it was possible to do so, an unmediated encounter

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with the fire. After stating that coverage of ordinary topics must yield, *The Times* continues its preliminary report of the fire with a disclaimer that it may feature potentially unreliable narrators:

> Such narratives of this calamitous and awful conflagration as have been furnished by persons who witnessed its progress on the spot, will be found in the form and succession in which they reached us. On like occasions it is difficult to answer for the correctness or consistency of the several accounts which may be circulated, some time being necessary to arrive at authentic details…. ("London, Friday, October 17, 1834" 2).

In *The Times* and in other periodicals that drew from correspondents' first-hand accounts, the immediacy of experience is defined by the writer's proximity to the physical location and by the speed with which the periodical compiled and relayed the information to its readers. Organizing the narration of the fire around immediacy is a strategy that would later be adapted for sensation fiction, such as Wilkie Collins's *The Woman in White* (1860) and Bram Stoker's *Dracula* (1897), fictional archival texts comprised of diaries, telegrams, and newspaper clippings limited to their contemporaneous moment and that relate past events with a present sense of immediacy. As *The Times* states, the veracity of the reports would only become apparent later through subsequent investigations, incentivizing readers to return and to collect, compare, and evaluate details from competing narratives as they unfolded. The parliamentary inquest became a crucial narrative technology for scripting an official record of the fire; witness testimony added dramatic dialog and recognizable characters to an otherwise chaotic scene, and the inquest itself provided a mechanism for truth finding that was distilled in periodical reports through transcription and summary.

Part of the urgency in relating the facts of the fire, as well as the desire for creating a sense of immediacy through periodical accounts, stemmed from the fact that tens of thousands of people had witnessed the event. In addition to calming fears about the size of the crowd that had gathered at the fire for an unmediated experience, periodicals discussed the crowd because they were also vying for importance and attention in the aftermath of so many people having witnessed the event firsthand. The fire was an opportunity to picture the masses in unprecedented terms and techniques.

The Standard imagined that the striking textual and visual images of the immense crowd would pique their readers' interests as much as the visual splendor of the flames, and reported that the thousands of uninvited spectators who had gathered in front of the building were held back from the flames only by the presence of the police force and Grenadier Guards. Groups of people stood on nearby bridges and rowed in boats along the Thames, while wealthier viewers hired coaches to fly dangerously through the densely populated streets and to bring them closer to the blaze for a better view. One *Standard* correspondent claimed they had never seen the "thoroughfares of the town so thronged before," and captured the visual effects in prose:

> Westminster bridge, covered as it was with individuals standing on its balustrades, was a curious spectacle, as the dark masses of individuals formed a striking contrast with the clean white stone of which it is built, and which stood out well and boldly in the clear moonlight. As you approached the bridge you caught a sight through its arches of a motley multitude gazing with intense eagerness on the progress of the flames. (3)

In this passage, the crowd becomes part of the visual spectacle; individuals remain somewhat distinct from one another and yet are transformed into dark masses, and the contrasting brightness of the white stone background enhances the effect. Distinguishing

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features are illegible, but the crowd can be apprehended visually as both individuals and as a pluralistic group once the moonlight flattens the three-dimensional bodies into a silhouette. At the same time, the silhouette offered a more homogenous view of the crowd as overlapping shadows blurred boundaries of individual forms and became a formless mass. The language of this article embodies Nicholas Daly's concept of "the demographic imagination," an affective response to an encounter with images of "mass humanity" that coincided with England's increasing population (1, 5-6). Combined with the stunning effects of the flames, the images of the crowds transformed the disaster into an act of media consumption that would be adapted across various forms of media for the unseen masses of readers and viewers. The appearance of the silhouetted crowd resonated politically, and the efforts to control the crowd at the time of the fire and during the subsequent cleanup paralleled the efforts of journalists to control the reception of the event. One fascinating aspect of this particular crowd was seeing the masses projected onto a structure that was meant to represent the people. As Poovey reminds us, "the poor were not usually considered members of the body politic," yet here was an intermixed crowd of different social classes projected onto an architectural symbol of the political body (7).

Due to the buildings' rich history, periodicals presented a dominant interpretation of the fire as a highly symbolic national disaster and mournful loss. The morning after the fire, *The Times* printed highlights of the fire alongside a thorough history of the buildings and the historical events that had taken place there throughout the centuries. By turning readers' eyes to history, *The Times* offered a didactic method for interpreting the event,

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which was especially important given the buildings' metonymic relationship with the government, and, by extension, the nation. *The Times* commended the crowd for their sense of decorum:

> The conduct of the immense, the countless multitudes which in the course of the evening flocked together to view this spectacle of terrible beauty was such as to inspire respect. Composed as it was necessarily of all classes, we did not observe in more than one or two instances any expressions of levity, and not one of exultation, at the destruction of these venerable edifices: the general feeling seemed to be that of sorrow, manifested either by thoughtful silence or by occasional exclamations of regret. […] On common occasions of general concourse the English are sufficiently noizy in the demonstration of their feelings; but on this occasion all was grave, decorous, and becoming a thinking and manly population. ("London, Friday, October 17, 1834," *The Times*, 2)

The plural "multitudes," though countless, still call to mind the presence of individuals. The final line signals the widespread relief that the masses had gathered in relative silence without turning into an ungovernable mob.

As with new media technologies that afforded new ways of seeing and sensing discussed in the introduction and second chapter of this dissertation, understanding the conflagration as a media spectacle lets us examine how it presented new visual opportunities, registering individuals and the masses as silhouetted forms, comparing the aesthetic effects of firelight and moonlight, and transforming the city into a theatrical set (see fig. 3.2). The portrayal of the crowd as a media audience occurred naturally to nineteenth century writers because the dueling lighting effects of the moon and the flames, in addition to the dramatic scenes that occurred during the spectacle, were similar to intentionally staged theatrical events. The attention to the effects of light, contrast, and clarity in periodical coverage of the fire evokes the language used to advertise special

lighting effects in popular entertainments, such as the "thrillingly authentic" volcanic fire

and moonlight used in panoramic adaptations of the 79 A.D. Vesuvius eruption, which I

analyze in chapter four.

Fig. 3.2, Palace of Westminster on Fire, 1834. Oil painting by Unknown,
© Parliamentary Art Collection, WOA 1978. www.parliament.uk/art

Lighting effects were particularly fascinating to nineteenth-century audiences because

gas light was gradually replacing firelight, and because theatrical pyrotechnics continued

to innovate using chemicals and machinery in order to enhance the verisimilitude of

staged fire disasters throughout the nineteenth century.[13] The theatrical effects were not

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[13] See Daly's "Fire on Stage."

lost on those who viewed the fire. In a letter to a friend, Letitia Landon appraised the fire

in theatrical terms:

> Never was a spectacle so much enjoyed. All London went to see the fire –
> and a very beautiful fire it was. One most singular effect was produced by
> the mass of people on Westminster Bridge as seen from the river. Between
> the white pillars of the ballustrade [sic] was a human head and the contrast
> of light and dark, was as they say of a scene in a new play, very effective.
> The sky too had a lovely appearance – on one side loaded with crimson
> clouds, on the other the moon breaking through the light fleecy vapours –
> with a space of such clear blue tranquility around. (qtd. in Shenton 111)[14]

The newspaper coverage of the Parliament fire represents concerns about how

mass audiences consume media when there are no narrative structures to guide their

interpretations. Unlike other forms of mass media entertainments, there were no assigned

seats, no tickets, and no pre-scripted program. The newspaper coverage of the event

echoes early and mid nineteenth century concerns that mass media entertainments should

serve a didactic civilizing purpose. Since the accident provided no interpretative

apparatus, the drama of the event required scripting after the fact, especially since slightly

different perspectives of the fire began to punctuate the solemnity of the crowd depicted

in *The Times*. Other reports of the 1834 fire agreed about the relative silence of the

crowd, but some described a slightly more cheerful atmosphere.[15] Thomas Carlyle

appears to have agreed with these more colorful reports based on a letter to his friend that

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[14] The Parliamentary Archives catalogue entry for HL/PO/RO/1/78 that Shenton quotes
from describes two items: Landon's "Letter containing eyewitness account of the burning
of the Houses of Parliament and [a] framed coloured lithograph on the same subject."

[15] Citing depictions of silent crowds at 1820s executions in Russia and India, Klancher
provocatively suggests that silencing the crowd may be a reporting technique in order for
the reporter to "bridge with his own discourse the private, unheard speech of his
represented figures [the avatars of urban desires] and the silence of his reading audience"
(84).

said the crowd was "rather pleased" and "*whew'd* and whistled when the breeze came as if to encourage it [the fire]" (227). The differing reports represent attempts to provide an interpretive structure for the accidental media spectacle, and I would argue this is necessary given the grand scale of the fire and the mass audience that it accrued, both on the night of the fire and in its subsequent textual and visual representations. Klancher has analyzed historical precedents for this rhetorical strategy, stating that stereotyped characters allayed early nineteenth concerns about crowds and radical politics. Separating the appearance of a frightening mass of people into individual archetypes, or "avatars of urban desire" to borrow Klancher's phrase, "makes them immediately visible" (83).

The dark masses silhouetted against the firelight and moonlight remained partially illegible, but identifiable voices and familiar scenes began to form a discernable narrative shape. This scripting transformed throngs of people into knowable characters and an unpredictable fire into an event with recognizable dramatic acts even when periodicals recorded – or invented – dialog that articulated anti-Parliament feelings. For instance, as periodicals printed excerpts from other newspapers, a few recognizable characters and scenes began to emerge: an old man who wishes hell upon those who saved the Poor Law from the flames, a young chimney sweep who reflects on the gagging orders that were part of the recent Chimney Sweepers Act, and a drunken coalheaver who, when turned away at a police barricade, insists that he has the right to watch his own "property" burn down (qtd. in Shenton 130-131). The dramatic encounters with these character types help expel contemporaneous fears of radical politics by making those sentiments singular; a few recognizable shouts are less frightening than the unknown thoughts of a silent crowd.

The specifics of the shouted protests were still troubling, however, and the coalheaver's claim that the buildings are his "property" is emblematic of the fraught negotiations that Poovey observes taking place between economic, political, and social domains. The crowds remained central to the coverage of the event in the popular press, in part because their presence enabled the transformation of the disaster into a media spectacle, and because the crowds were expanding into an ever-growing audience. The crowds on the night of the fire mostly dissipated by three the next morning, but the event continued to accrue audiences as passersby looked upon the ruins and as readers and viewers consumed the disastrous conflagration across textual and visual media platforms, including newspapers, literary magazines, paintings, and historic forms of mass media entertainments, such as the panorama.

Consuming Disaster

Controlling perceptions of the crowd and scripting the event after the fact was necessary due to the precarious symbolism of a massive live audience consuming a disaster as a form of entertainment. The potentially radical implications of the fire, whether caused by accident or arson, could undermine government authority. Multiple reports expressed relief that the fire had spared Westminster Hall because of its association with the historical and moral fabric of the nation.[16] As for the Parliament

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[16] *The Times* described Westminster Hall as "the scene, the witness, we had almost said the living associate, of so many of the most ancient and noble passages in English history, has escaped this deplorable visitation" ("London, Friday, October 17, 1834" 2). See Ronald Quinalt's "Westminster and the Victorian Constitution" for a thorough and richly illustrated history of the buildings' architecture and symbolism.

buildings, *The Times* states that everyone would feel their loss "as an afflicting accident" before pivoting to the future of the buildings and, by extension, to the future of the nation ("London, Friday, October 17, 1834" 2). The article's concluding paragraph concedes mourning is necessary, but it "utter[s] a wish that the restoration of the dilapidated parts may be made in a style harmonizing with the original building, instead of exhibiting a heterogeneous mass of architectural erections, in which taste, chronology, and convenience, were equally set at nought" (2). The aesthetic harmony between old and new buildings is one method for visually tempering what the conflagration had ruptured: continuity between past, present, and future, a metaphorically architectural move that could shore up the perpetuity of Parliament even as its physical structures were in ruins.

Paul Fyfe's research on accidents is helpful for thinking about the desire for architectural continuity in *The Times*. Accidents, more so than disasters, are interruptions in the perceived linear flow of time and an opportunity "to study its [urban modernity] dialectics at such moments of arrest" (Fyfe 15-16). The nineteenth-century writers Fyfe analyzes intentionally "accentuated the randomness or accidentalness of the metropolis…to challenge positivistic and politicized notions about causation, dis/order, and change" (18). The accidental 1834 fire, however, set in motion the very "managerial attitudes" that those writers would have resisted (18). Accidents suggest arbitrariness, whereas disasters can mobilize ways of making meaning by relying on narrative and visual strategies. Once additional reports demonstrated that the fire was not the action of one single man, but an accident, the fire became an indictment of an entire system that lacked correct oversight and relied on outmoded regulations, including the earlier

decision to preserve the tallies as archaic and meaningless records and the managerial

flaws that led to their improperly supervised destruction. The fire became emblematic of

Parliament's failure to act on behalf of all its citizens, and many reports agreed that the

destruction of the buildings was not a great tragedy because no lives were lost and the

original buildings were not necessarily beloved architectural monuments. Instead of

presenting the fire as a disastrous or accidental rupture with the past, *The Western Times*

describes the fire as purification and makes puns about fire and parliamentary language

that would have amused Thomas Hood, as I will demonstrate in the section on his 1835

Comic Annual. No great loss to national symbolism, *The Western Times* argues, "[a]s

buildings, both houses…were wretched, incongruous, and inconvenient to the last

degree" (2).The article asks, "Why should we lament?" since the King and Queen are

safe and "[n]ot a life has been lost" (2). The practical yet irreverent article considers that

fires historically have resulted in "some purification": "[t]he greatest fire known to

London burnt down the city, but it burnt out the plague" (2).

Some of London's residents also appeared inclined to move past mournful

eulogies for the buildings' and to evaluate the aesthetics of the ruins, which were made

valuable through their association with the fire itself and not because of their symbolic or

historical connections to the original buildings. The ruins, evidence of the disaster,

enhanced the consumption of the event as a media spectacle and provided yet another

opportunity for immersive scopic pleasures and for other, multisensory forms of

consumption. Though George Scharf's sketches and watercolor illustrations highlight the

ruins' aesthetic appeal, and though *The Western Times* observed other artists sketching

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the ruins, the highly aestheticized textual and visual accounts of the flames do not always extend to textual descriptions of the ruins, nor do they apply to reminiscences about the original architecture. In an otherwise laudatory account of the fire's visual splendors, *The Standard* concludes that the fire was "the work of ruin" and resulted in "an unsightly ruin" (3). The fire's accidental origins failed to evoke the same aesthetic appreciation for ruins in earlier Romantic print and visual cultures. Rather than reflecting the inevitable decay of time, the dissolution of architectural forms had occurred in a matter of hours.

The disaster also renegotiated public access to the buildings and unleashed the potential for an unmitigated consumption of the event not only as a visual entertainment, but also as a material reappropriation of property through the acquisitions of material souvenirs. The spectacular pyrotechnics on the night of the fire had resulted in an unprecedented and rapacious consumption as spectators ignored the unspoken rules about appropriately occupying spaces and instead crowded together, repurposing bridges, roofs, and boats into make-shift chairs and viewing galleries. While the massive crowd had mostly dispersed by the next morning, the site continued to amass spectators as the fire's embers smoldered and as "[t]he workmen continue[d] assiduously employed in clearing away and carefully examining the rubbish in all those parts where the heat ha[d] sufficiently evaporated to allow them to be handled" ("The Late Fire," *The Times*, 21 Oct. 1834).

Following similar managerial practices associated with accidents and with other media entertainments, officials created a physical barrier to redirect the flow of overly interested crowds back to their daily lives and responsibilities. On the Saturday morning

after the fire workmen erected a nine-foot barrier, ostensibly to protect passersby from their own curiosity and from getting too close to the dangerous ruins, but also to deter spectators whose appetites for consuming spectacle proved too rapacious. "[N]ow," as *The Times* reports, "the public are allowed to pass the site in the usual manner" ("The Late Fire," *The Times*, 21 Oct. 1834). Without the barrier, the theatrical spectacle would have continued without reins, exceeding the confines of stage or screen and ignoring the boundaries of theatrical forms by not complying to theatrical "acts" or to a list of entertainments. When fires erupt, they can accrue symbolism, become indexed across time, and interrupt notions of progress. The barrier, however, intervened in a boundless consumption that threatened to extend into days and weeks and aimed at preventing the further amassing of crowds that would have replenished a perpetual live audience at the site. Yet, despite the nine-foot barrier, and despite the inclement "wetness of the morning" three days after the fire, the "opportunity of obtaining but a very scanty view of the ruins was embraced by thousands" (The Late Fire," *The Times*, 21 Oct. 1834).

The visual stimulation of the flames and the ruins gave way to other multi-sensory forms of consumption. A week after the fire, *The Times* continued to report on the public's desire for unmitigated access to the ruins and described the "eagerness" of some spectators to collect smoldering relics as souvenirs:

> The curiosity of the public to view the ruins of the late houses of Parliament still continues unabated, and the whole of yesterday the applications for admission were as numerous as ever; the eagerness of persons to procure some relic of the fire is most astonishing, a piece of stone, a piece of burnt wood, fragments of burnt letters, or pieces of paper, &c, are considered the greatest curiosities, and looked after with the utmost eagerness, and hoarded with the greatest care and attention. ("The Late Fire," *The Times*, 23 Oct. 1834, 3)

Many of these items may have been relatively easy to procure at the time of the fire since

one of the strategies for saving government property from the flames had included

hurling papers, books, and other objects out of Parliament's windows.[17] For instance, one

report sighs with relief that the library of the House of Lords remained unharmed after

the "unceremonious, confused, and rough removal" of its books and then further

comments that the library had not been the subject of "plunder" ("The Late Fire," *The

Times*, 21 Oct. 1834). While many of the papers that were hurled from Parliament were

recovered, it can be imagined that burnt parchment and fragments of charred timber could

have traveled beyond the confines of where the barrier was eventually erected since the

immensity of the fire would have created its own weather system with funnels of heat,

updrafts, and wind. The relics that circulated were valuable because they reanimated the

original spectacle and enabled a more multi-sensory consumption through the kinetic

energies spent in finding such treasured objects, the olfactory enhancement of the smoke,

and the tactile pleasures of holding an item charred by the flames. In this vein, the objects

resembled souvenirs from other "live events," which Susan Zieger has analyzed with

regards to pledge events held by the temperance movement, showing how the material

souvenir "memorialized the live event, resurrecting its intensive collective feeling" (15-

16). Most of the relics from the fire were no longer considered valuable to the

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[17] Shenton notes that this measure, while intended to preserve documents, ended up damaging archival documents because of water damage and, of course, the fall itself (161). Perhaps Thomas Hood had these souvenir hunters in mind when he included the fictional Monsieur C's account in his 1835 *Comic Annual*: "I bottled up several bottles of smoke, to distribute afterwards, at five guineas a-piece, and may be more; for I know the English people admire such things, and are fond after reliques, like a madness almost" (23).

government and represented a kind of cultural capital, proof to the collector of their participation in the historical event.

However, not everyone was satisfied with collecting discarded ephemera that had come in contact with the fire, and the accidental nature of the fire left the damaged Houses of Parliament open to alternative forms of material consumption through plunder. On one occasion, disaster tourists audaciously "chipped off several pieces of marble from a valuable marble chimney-piece, which was in the banqueting-room, *uninjured from the fire*, and which [was] valued at 400 pounds" ("The Late Fire," *The Times*, 23 Oct. 1834, 3, my emphasis). Even on the night of the fire, material possessions from the Parliament buildings were up for grabs, and reports stated that guards held viewers back to prevent both injury and pilfering. The barrier prevented crowds from indulging in relatively uninterrupted absorptive consumption of the event that lacked the usual boundaries of time and space afforded by other media entertainments. Theatrical entertainments signal the proper times for viewing and consuming through house lights, stage effects, and narrative cues, and the audience must go home afterwards. Mechanical entertainments end once they have "played through," or once the operator has finished activating the illusion. The fire's exponentially increasing audience is indicative of an emerging modern media consumer, and the fire reflected concerns that surrounded historic media throughout the century, including issues of taste, attention, absorption, and interpretation. Part of the appeal of consuming the 1834 fire as a disaster spectacle was that it could not be preserved. One could not collect or preserve a flame; one could only capture its effects in the scorch marks on a bit of parchment or wood. Media adaptations and

representations, then, were the preferred means of simulating the effects of the live event.

As artists and showmen adapted the event across different media platforms, it continued

to amass audiences. No longer bounded by the constraints of a specific time and place,

the Parliament fire became consumed by mass audiences who may have had no physical

connection to the original event.

Conflagration Aesthetics

Aesthetic appraisals of the firelight were peculiar, poetic, and striking in their own

right, and they served as an elevating demonstration of taste against the sensational

consumption of disaster and accumulation of souvenirs analyzed in the section above.

The Parliament buildings supplied an impressive amount of tinder, resulting in a

powerful display of illumination that pre-dated the wholesale adoption of gas lighting in

domestic, theatrical, and other urban spaces, a transformation that would become a

symbol of modernity. *The Standard* directly compared the visual effects of the 1834 fire

to "the appearance of burning of a city," emphasizing the scale of this media event both

materially and metaphorically. The Parliament fire became the largest firelight spectacle

in Britain since the Great Fire of London in 1666.[18] Harriet Martineau claimed that

anyone who had witnessed the Dublin custom house fire in 1833 and "thought that they

had now witnessed the most remarkable fire in their generation" would be "mistaken,"

for it would later be "forgotten" after the Parliament fire (436). In an era that moved

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[18] Shenton argues that the 1834 fire "was the momentous blaze in London between the
Great Fire of 1666 and the Blitz, when the Houses of Parliament came under attack from
incendiary bombs" (4).

away from wood and coal-fueled fires and replaced "natural" light with "artificial" and "industrialized" illumination, the aesthetic descriptions of the 1834 fire do more than create a sense of immediacy or sell papers. The 1834 Parliament fire presents an opportunity to study an encounter with pre-industrialized firelight and to recover affective responses to fire as a media spectacle with a distinct visual aesthetic.

In nineteenth-century theatrical entertainments, different forms of light directed attention, stimulated the senses, or enhanced the simulacra of representations. As Nicholas Daly and Terrence Rees have demonstrated, live fire, pyrotechnics, and limelight became increasingly important technologies for theatrical productions throughout the century ("Fire on Stage" 13; Rees 42-64). These theatrical forms of light also became part of conversations about purely sensational spectacles, which Nancy Rose Marshall has analyzed regarding mid-century concerns about lighting effects in paintings and media that "trivialized sensational spectacle into entertainment rather than art" ("Startling" 539). Light-based media entertainments that grew alongside increases in urbanization instigated conversations about high and low culture and participated in ongoing conversations about attention, absorption, and distraction.

Throughout the account in *The Standard*, the fire entices and rebuffs viewers, offering the thrill of never-before-seen images and, in its dazzling intensity, creating images that, rather than illuminating the surroundings in more detail, become brilliantly opaque.[19] *The Standard* describes the visual delights of the fire from multiple vantage

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[19] Costello analyzes the "forms and non-forms" in Turner's *oeuvre* and argues that Turner focuses on the "process" of destruction rather than on the final scene of ruin: "The fire, of course, is a non-form, a nothing, that becomes substantial here through paint; it dwarfs

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points, stating that "[t]he conflagration, viewed from the river, was peculiarly grand and impressive" and that "[t]he appearance of the fire from the corner of Abingdon-street was also exceedingly striking" (3). This language curates visual experiences and elevates the spectacle from unthinking absorption and stimulation of sensory organs into a rare opportunity for aesthetic pleasure resulting from years of cultivating sensibility. When describing the scene, one *Standard* correspondent invites the reader to share in his embodied viewing experience, writing: "Till *you* passed through Westminster-bridge, you could not catch a glimpse of the fire in detail – *you* had only before you the certainty that the fire was of greater magnitude than usual, but of its mischievous shape and its real extent you could form no conception" (3, my emphasis). Given the ever-changing shapes of flames, the tension between formlessness and form remains throughout the piece, never fully resolving into a still image. Even once the flames subsided, the fire continues in a more subdued state as embers smoldered beneath the architectural ruins of the Houses of Lords and Commons.

The *Standard* transformed an unscripted and therefore formless event into recognizable shapes and silhouettes and, in contrast to the uninvited attention of a mass audience, directs the reader's attention to remarkable images, like the Abbey illuminated by flames. *The Standard* reports, "the stately appearance of the Abbey, whose architectural beauties were never seen to greater advantage than when lighted by the flames of this unfortunate fire, would of itself have attracted as many thousands to the

human achievement by reducing something, the substance of architecture, to nothing" (*J. M. W. Turner and the Subject of History* 14). Costello has continued to examine fire across Turner's paintings in his article, "Power, Creativity, and Destruction in Turner's Fires."

spot" (3). The language of aesthetic appreciation and the attention to the illuminated architectural forms elevate the fire from a mass spectacle that appeals to our "lowest" senses to an unprecedented display of artistic achievement. The highly visual description continues to render the event in artistic and architectural terms, showcasing a series of recognizable moments and scenes that could be repeated and recreated in later media adaptations.

The report continues, describing the view from the river: "There was an immense pillar of bright clear fire springing up behind it [Westminster Hall], and a cloud of white, yet dazzling smoke, careering above it, through which, as it was parted by the wind, you could occasionally perceive the lantern and pinnacles by which the building is ornamented" (*The Standard*). The contrast between the "bright clear fire" and "white, yet dazzling smoke" tests the limits of vision. The formless and dazzling smoke at times occludes the architectural details of the building. As the smoke opens and closes views to the eye like the aperture of a camera, it replicates the visual trickeries of other media devices. Furthermore, the "pillar" of fire translates flames into a more recognizable architectural shape. The translation of flames into a pillar of fire is particularly dazzling given the apparently rigid architecture of the buildings were crumbling in real time before a mass audience. The tension between form and formlessness continue as the narrative attempts to replicate the simultaneity of scenes at the event. Immediately after describing the pillar of light, the next sentence tries to replicate visual montage of simultaneous action into textual prose: "*At the same time* a shower of fiery particles appeared to be falling upon it with such unceasing rapidity as to render it miraculous that the roof did not

burst out into one general blaze" (*The Standard*, my emphasis). "At the same time"

emphasizes the simultaneity of the images produced during the event, but language

renders those images into a sequence because even if the words say "at the same time,"

the reader will have necessarily read that description second.

The fact that the fire presented an incredible aesthetic display and a rare artistic

opportunity was instantly acknowledged.[20] One anecdote recounts that the students of the

Royal Academy on the Strand went clambering "onto the roof of their college at

Somerset House to view the disaster better" (qtd. in Solender 11). More established

artists flocked to the fire as well, including J.M.W. Turner, who hired a boat to row him

up and down the Thames. Turner filled multiple sketchbooks with various views of the

fire and produced two large oil paintings, which were exhibited in 1835.[21] The fire's

aesthetics also dominated textual accounts, and *The Standard* provides one example of

privileging visual, rather than tactile, descriptions. The appeal to the visual is, in part, to

elevate the event from sheer sensory stimulation. Heat and other tactile and auditory

descriptions would too readily ground this event in bodily sensations, whereas the eye

can be trained to perceive beauty and art with discerning appetites and tastes. Many of the

descriptions from *The Standard* are concerned with how the fire moves: not only to

accurately report on the progress of the fire, but because this event was a massive

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[20] For a list of artists at the fire, and for an architectural history accompanied by beautiful
reproductions of sketches of the ruins and plans for new buildings, see R. J. B. Walker's
"The Palace of Westminster After the Fire of 1834" (1972-1974).

[21] Though Solender thinks the notebooks are related to the Parliament fire, some scholars
disagree. See Costello's discussion in "Turner's Fires."

demonstration of the combustive power of fire, the understanding of flames as animated, moving images, and the appreciation of light as an aesthetic element.

Attending to the aesthetics of the conflagration helped ameliorate the concerns about formlessness that had emerged alongside the imagery of the crowds and the depictions of architectural structures reduced to rubble. The tensions between form and formlessness continued because crowds of spectators were overrunning recognizable forms – such as rooftops and bridges – blurring the boundaries of purpose and functionality. Available media technologies, however, such as the periodical press, literary magazines, paintings, dioramas, and Spooner's Protean Views, created a series of reproducible images that could be more easily mechanized, mass produced, repeated, and disseminated.

Thomas Hood's 1835 *Comic Annual*

Returning to the arena of humor, scripting national disaster, and print media audiences, let us consider how Thomas Hood's remediation of the event into the gift book or literary annual genre allows for play, pleasure, and print media consumption while also providing a narrative for the fire and, given the satirical nature of the annual, a means of undercutting its seriousness. Hood's annual capitalized on the humor of the event, an element that many periodical reports had featured as part of their coverage. One biting description characterized the fire as an "Incendiary Act" that moved quickly through parliament, a sampling of the ironic prose that would feature prominently in Thomas Hood's *Comic Annual*, published a few months after the fire in January 1835.

The first third of the 1835 annual is comprised of recollections of the Parliament fire, or "The Great Conflagration," in snippets transcribed from periodicals – real or imagined – as well as long form reports and exclusive correspondence from members of various classes and written in different dialects. No member of any class is spared from Hood's sense of humor. Granting jurisdiction of the tragic genre to news coverage and paintings, Hood announces that he "felt the more called upon to present the ludicrous passages that occurred, and thus supply the lights to the shades of a picture that is destined to occupy a prominent place in the National Gallery" (xii). The *Comic Annual* captures the tumultuous accumulation of people who had witnessed the fire first hand while emphasizing its most comic features. Since the fire had not caused any deaths and the only casualties were buildings that many considered ugly, the *Comic Annual* presented the fire as an opportunity to illuminate through jest and to highlight societal failures with a comic glow. One section, for instance, begins by quoting from the *Evening Star*: "We are writing this paragraph without the aid of lamp or candles; by the mere reflection of the flames. Nothing is known about the origin of the fire, although *it is throwing a light upon everything else*" (Hood 1, my emphasis).

  The *Comic Annual* capitalized on the desire to consume the Parliament fire as a media event. As with the earlier volumes of Hood's annual, which remained in print from 1830 – 1842, the 1835 volume used the form of gift books and literary annuals to create a commemorative reflection of the fire, the topicality of which would have enhanced the desirability of the book, that relied on the tradition of other print media sources to link commemoration and consumption in a way that would allow viewers to (re)experience

the fire without plundering relics from its ashes. Sara Lodge has argued for renewed

scholarly attention to Thomas Hood as an exemplary figure of literary periodical culture,

citing contemporaneous views, such as Bulwer-Lytton's 1833 claim that that the works of

"great literary men" are in journals and periodicals, and by demonstrating how

periodicals contributed to political reform and a "revolution in commercial print culture"

(6). Lodge credits Hood's playful blurring of generic boundaries and genius for comic

verse for his ability to garner many admirers and friends, including Coleridge, Goethe,

Tennyson, Thackeray, Ruskin, Poe, and Dickens, Robert Browning, and Lewis Carroll

(Lodge 1, 3). Margaret Morlier has demonstrated the mutual influence Thomas Hood and

Elizabeth Barrett Browning had on each other's works, reporting that Browning read the

1842 *Comic Annual* in its entirety and found Hood's ability to "mov[e] the conscience of

readers with ironic wit" commendable (Morlier 102-103).[22] While Morlier characterizes

Hood's *Comic Annual* as "a parody of the sentimental annuals and gift books, which

were an important outlet for editing and poetry by women," Lodge sees the *Comic*

Annual as central to political reform and revolutions in commercial print culture, and

asserts that the publication's "small size, accessible verse, and liberal illustrations, laid a

groundwork for later Victorian children's writers" (Morlier 102; Lodge 6, 183).

The form of the literary annual or gift book facilitated a shared media ecology

between narrative prose and other forms of print media, such as periodicals, prints, and

paintings. The 1836 volume of *The Keepsake* edited by the Honorable Mrs. [Caroline]

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[22] Morlier notes that both Browning and Hood published protest poems in 1843, "The
Cry of the Children" and "The Song of the Shirt," about the injustices suffered by
members of the working classes (103).

Norton, for example, commemorated the fire with Norton's poem "The Burning of the Houses of Lords and Commons" and an accompanying engraving by J. T. Willmore based on a specially commissioned watercolor by J. M. W. Turner (Solender 63). The illustrations in Hood's *Comic Annual*, however, focused more on humorous caricatures of individuals related to the fire, such as a clownish illustration of a fireman, titled "Playing at Hazard," with bricks careening towards his head (facing p. 6), and a wood-cut of a wailing woman, with arms flung above her head while she watches the fire from the safety of her home through a window, crying, "Our Constitution's Gone!" (facing p. 25).

The competing facts of the fire that dominated periodical reports meant that the issue of veracity was a part of the conversations surrounding the fire, and Hood saw an opportunity for humor by presenting ludicrous accounts of the fire as authentic. In the preface, Hood professes that "[t]he accuracy of the statements may be implicitly replied upon," and that "[t]he Jubb letters are from real originals, and any gentleman who may be skeptical upon the epistle of Ann Gale, shall be welcome to her hand" (xii). The extent to which Hood has verified the veracity of his materials rises to preposterous proportions when Hood confesses that he had doubted M. Chabert's account until he "corroborated" it with a policeman whose hands were burnt when someone handed him "a large hot inkstand" to save from the flames, going so far as to provide the man's badge number, "N. 75" (xii-xiii). As for the accuracy of the descriptions, Hood puns that he has heard reports from the "highest authorities," people who are credible due to the sheer physical heights of their vantage points, having climbed atop the "steeple of St. Margaret's Church, or in the iron galleries of the Monument and St. Paul's" to view the fire (xiii).

The iron galleries is a reference to the viewing area at the top of the Monument of the

Great Fire of London, just shy of the column's full 202-foot height. Constructed between

1671 and 1677, the Monument is approximately three miles away from Parliament, and

this reference would have enhanced the pleasure and humor for readers by connecting the

two fires. Almost as an afterthought, Hood finally adds, "Besides, I was at the scene

myself" (xiii).

The *Comic Annual* relies on immediacy of first-hand accounts – real, or imagined

but presented with a knowing wink to the reader – recorded in various voices to intensify

the pleasure of the reader as they imagine the various people affected by the fire reacting

in their distinct voices. The letter by Ann Gale, for example, the fictional servant of the

invented Member of Parliament Sir Jacob Jubb and his wife Lady Jubb, describes "a

terryfickle spectickle that was won! Flams before and flams behind, and flams over-

head" (Hood 30). Ann Gale observes that Lords saved furniture before she was "reskewd

at last" (31). Readers may be entertained by Ann Gale's dialect and her somewhat belated

realization that she is writing a letter to an illiterate friend (33), but Hood's farcical

volume spared no character regardless of their high or low social class. The letters from

the Jubbs expose more laughable flaws, particularly the letter from Sir Jacob Jubb who

fears the reports of incendiarism and points to a pandemonium of potential suspects who

are tellingly from colonial holdings such as Ireland, India, and Africa. His ridiculousness

and alarmist tone is surpassed by his misguided advice to his servant when he

recommends purchasing gunpowder and setting it off occasionally so as to ward off any

would-be arsonists and Guy Fawkes imitators (48). Jubb cites quotes from the *Britannic*

Guardian to substantiate his fears: "England is gone to Italy – London is at Naples – and we are all standing on the top of Vesuvius" (41). This comparison to a volcanic eruption repeats twice more in the *Comic Annual*, including in Hood's own commentary after a series of periodical quotes: "The Throne, the Lords, and the Commons are now burning. The cycle is complete. The spirit of Guy Fawkes revives in 1834! England seems to have changed places with Italy; London with Naples. We stand hourly on the brink of a crater" (2-3).

Cumulatively, the characters collected in the annual read like the dramatis personae of a theatrical farce on a metropolitan scale, combining familiar stock figures from topical news reports and other literary genres. The coordinated actions of recognizable figures are avatars of Hood's humor, satirizing various social classes and political parties with somewhat equal force. As with the periodical reports, however, these stock characters also transform a potentially formless event into recognizable narrative strategies and identifiable, familiar figures. In other words, while most likely not Hood's intention, the literary annual uses commemoration and satire to convert a national disaster into a consumable and digestible product. One of Hood's correspondents, a fire aficionado who signs his report "SENEX," makes this generic connection explicit. According to the *Oxford English Dictionary*, "Senex" means "old man" in Latin, but in literature, and especially in comedies, it refers to an old man as a stock figure. Senex mentions pushing past the crowds of spectators before finding a place knee-deep in the mud of the Thames to watch the fire from the Surrey side of the river, but he focuses on what he sees and hears rather than on the crowd, and he helps focus the

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readers' attentions to the buildings, fire, and moonlight through the entertaining premise that he is a conflagration connoisseur appraising the fire's merits.

The crowd remains in the background, overshadowed by the narrator's solitary voice. Senex confesses a love for conflagrations, "To say I am a guebre, or fire-worshipper, is only to confess the truth," and mentions that he has an observatory situated on the roof of his house for the sole purpose of spying fires (Hood 13).[23] The news of the Parliament fire enables the eighty-year-old Senex to run with the "alacrity of [an] eighteen" year old man (17). His account briefly indexes the previous fires that he has witnessed, noting that he missed the Kent Indiaman fire before offering his informed reviews of the fires at Rotherhithe, Drury Lane and Covent Garden theatres, the Custom-house, the Langdale Distiller fire associated with the riots of the 1780s, and Dartford Mills (13-15). Of the 1780s riots, the only "lamentable" fact he can produce is that there were eight fires and therefore too many to witness first-hand (14); the Custom House fire occurred during the day, which did not produce sufficiently dramatic effects as the theatre fires, which, he suggests, "burn with more attention to stage effect" because "[t]hey avoid the noon" (14); and he determines that the powder magazines that exploded during the Dartford Mills fire meant the fire concluded too quickly. His eventual remark on the Parliament fire was that "a later hour and a darker night" would have been preferable, for "[f]ire-light and moon-light do not *mix well*: --they are best *neat*" (Hood 18). The intoxicating effects of the light are measured with a refined palate: no mere sensation

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[23] Betsey Trotwood similarly watches for the earliest signs of urban conflagrations in *David Copperfield* (1849-50), but, as Nancy Rose Marshall reminds us, her watchfulness is the result of fear, not enthusiasm ("Startling" 520).

seeker, he, but a connoisseur. His many years of conflagration chasing have led him to conclude that the more recent fires are yet another sign of modern times because they are too fast-paced and abrupt: "But fires, generally, are not what they used to be. What with gas, and new police, steam, and one cause or other, they have become what one might call slow explosions" (15-16).

In addition to using the rhetorical strategy of a narrator or speaker's voice, the *Comic Annual* relies upon the reader's familiarity with periodical prose to appreciate the ways in which it amplifies the editorial language to comedic effect. It is not always clear when Hood's quotes are from real or imagined periodicals, and that is the desired effect.[24] With an economical precision that never wastes the opportunity for a pun, Hood delights in playful connotations to lampoon parliamentary language with the shared rhetoric of fire. A particular source of pleasure for Hood was finding periodical reports that used parliamentary language to describe the actions of the fire: "In parliamentary language, Fire is in possession of the House: the Destructive spirit is on its legs, and the Conservative principle can offer but a feeble opposition" (*Daily Post* qtd. in Hood 2). Inflammatory parliamentary puns also pepper a report from a correspondent who signs off as "Your most obedient Servant, X. Y. Z." Continuing the rhetoric of parliamentary language, X. Y. Z. writes that "[a] considerable number of numbers had arrived, and

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[24] A resoundingly positive review in *The Athenaeum* reproduces selections from the 1835 *Comic Annual*, including some of the wood cut illustrations, and appears to be in on the joke when it claims that Hood's "account of the catastrophe is by far the fullest that has yet appeared, being extracted from private as well as public documents" (3). Further playing with the fictional appearance of authenticity, *The Athenaeum* winks at its readers when imagining that Ann Gale, whose private correspondence appears in the *Annual*, "must be the grand-niece of Winifred Jenkins," one of Tobias Smollett's characters from *Humphrey Clinker* (4).

without any attention to their usual parliamentary rules were all making motions at once, which nobody seconded" (7). In the confusion of the flames, the impetus to save paperwork worked poetically against political leanings. Referencing the tragi-comic circumstances of a young man who saved a woman from a burning theater only to discover that she was not "the mistress of his affections," the correspondent observes that Members of Parliament made similarly tragi-comic mistakes: "the Reform Bill was snatched like 'a brand out of the fire,' by a certain noble Duke, who resolutely set his face against it in all its stages!" (8). The prose skips along the many happy opportunities for puns, including observations that crowds feared Mr. Rice would be "baked" and Mr. Pease "parched," before pivoting to a harrowing fact of the fire that was reported in several periodical accounts: "The greatest danger was from the melted metal pouring down from the windows and roof" (8).[25] X. Y. Z. does not aspire to the same level of expertise as Senex, but aesthetic appraisals also briefly appear in his testimony of the fire. He discovers the fire upon observing "the singular appearance of the moon silvering the opposite chimnies [sic] with a blood-red light, a lunar phenomenon, which I conceived belonged only to our theatres" (4). The theatrical light hastened X. Y. Z.'s search for the blaze, which he found by "hunting by scent as well as by sight" (4). His aesthetic appraisals also provide further opportunity for puns, including his observation that "the Gothic architecture of the Abbey seemed unusually *florid*" (5, emphasis in the original).

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[25] The melting metal was a startling transformative and dangerous feature of the fire, and one that appeared across periodical accounts. It is one of the details that Shenton relies on to support her claim that Charles Dickens attended the fire and copied its defining characteristics in his descriptions of the fire in *Oliver Twist* (118).

Conclusions, or Replaying Immersive Experiences in Media Adaptations

Fig. 3.3, Spooner's Protean Views, No. 25, "The New Houses of Parliament." Images courtesy of The Bill Douglas Cinema Museum, University of Exeter.

It was widely felt that this was a remarkable event that must not only be recorded

or documented, but also experienced and re-experienced as a sensorial and immersive

event. Dioramas and panoramas, which often depicted recent disasters and current events,

provided a perfect medium for adaptation: large scale paintings and immersive views that

were sometimes enhanced with pyrotechnic effects. Media adaptations were not without

their hazards, however. In *Shows of London*, Richard Altick recounts a theatrical

representation of the York Minster fire that that ignited the painted "transparency" and

destroyed the Royal Bazaar venue at Oxford Street (167-168).[26] Despite these dangers

and the imperfect flickering quality of early gas lighting, "the dioramic depiction of great

fires was," Altick claims, "too well adapted to the medium and too popular to be

abandoned" (168).[27] The popularity of great fires, and the immediate topicality of the

Parliament fire, resulted in various dioramic and panoramic adaptations. As I mentioned

earlier, Charles Marshall's dioramic entertainment appeared on stage at the Victoria

Theatre before the embers of the actual fire had even cooled, and it featured large scale

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[26] Ralph Hyde notes that an 1829 diorama of "The City of York and the Minster on Fire"
painted by Clarkson Stanfield at the Royal Bazaar, Oxford Street, "itself caught fire
causing the destruction of the entire building" (434-435). Altick also cites Charles
Marshall's 1841 Kineorama, that represented scenes from Egypt, Syria, and Turkey, as an
example of these entertainments catching fire; in that instance, however, the fire was
quickly extinguished (168).

[27] Altick argues that "the flickering of jets" was "[a]n initial shortcoming" for dioramas
that used early forms of gas lighting, but that it "probably was remedied as gas
technology improved" (168). Altick cites Kenny Meadows's diorama of the 1834 fire as
one example of the diorama's irresistible compatibility with representing conflagrations.
The "Grand Tableaux, of the Interiors of the Houses of Lords & Commons, As They
Appeared Previous to Their Destruction by Fire, with a Correct Moonlight View, of the
Exteriors of the Late Houses, from the River Thames, And a Splendid Representation of
the Conflagration with Dioramic & Mechanical Effect, Also a View of the Ruins, as
Visited by their Majesties" was appeared at the Cosmorama Rooms, Regent Street (168).

views and mechanical effects. According to Ralph Hyde's *Dictionary of Panoramists*, a manuscript published online by the Bill Douglas Cinema Museum, the early nineteenth century witnessed at least three additional large-scale Parliament fire adaptations, including dioramas, panoramas, and cosmoramas. In 1835, E. Lambert created the "Conflagration of the Houses of Parliament" at the Queen's Bazaar on Oxford Street, Kenny Meadows did a "series of tableaux on the 'Destruction by Fire of the House of Lords and Commons for the Cosmorama Room" on Regent Street, and Thomas Howe included the "House of Lords on Fire" as part of four rotating cosmorama views in Exeter (Hyde 303, 312, 245, 274).

The adaptability of the 1834 Parliament fire was not just about documenting an historical event, but about replaying it: watching the buildings dissolve into flame, become whole, and dissolve again. The transformative effects fire – to combust, to burn, to consume, to dissolve – become an occasion for experimenting with the abilities of optical devices to mechanically animate images. For example, William Spooner created a series of "Protean Views," which used transparent images and backlighting to transform the initial picture into another view. Spooner was aware of the transformative effects of flames and had already capitalized on them by creating a series of Magic Prints that would change when warmed before an open fire (Hyde 433). As we will see in the next chapter, Vesuvius was one of the most popular subjects for optical devices like Protean Views because, as Isobel Armstrong explains, volcanoes were naturally occurring dissolving views, transforming from a dormant state into a scene of eruption (*Victorian Glassworlds* 262). An oft-overlooked example of Spooner's Protean Views is an image

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of the New Parliament Buildings, which, when illuminated, reveals silhouetted ruins backlit by turbulent flames. The print is small: approximately 5 x 7 inches, and its subtitle reads: "The New Houses of Parliament, Which seem to Rise from the Ruins and Conflagration of the Old Buildings" (see fig. 3.3). [28]

The title adheres to a triumphant linear chronology in which the present emerges, phoenix-like, from the ashes and ruins of the past. Since the view of the past is only produced when holding the transparent view before a light source, the viewer is first presented with an uninterrupted view of the present, a serene scene confidently painted over the turbulent past. The process of creating the visual effect, however, undercuts the implicit viewing directions announced in the title. The viewer begins with an image of the present and, by holding a light source behind the image, the past actually erupts into the present as the old silhouette and flames overtake the new buildings. Spooner's representation of the 1834 fire also recreates the scene of the original spectacle by placing boats packed with spectators in the foreground of the fire. One can also imagine that various distances between the image and the source of illumination could create different visual effects as well, with greater distances creating hazy outlines of the old fire that overlay the still visible new Parliament buildings and smaller distances creating a sharper image that elides the current buildings altogether. While the title suggests that the present view of the buildings, which are rendered in more detail with architectural and perspectival precision, should be the most impressive, the flat silhouette of the old

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[28] According to the entry for "Transparency" in Maurice Rickards's *Encyclopedia of Ephemera*, Spooner's Protean Views were all one standardized size: 134 x 180 mm, or approximately 5 x 7 in (339).

Parliament buildings appears much grander and taller than the current buildings, and its imposing outline is rendered more impressive by the towering flames careening behind it. Playing with the transparent view was meant to show a triumphant emergence from the past, but it could also signal a troubling dissolution. As the fire was adapted across forms of media, the question of how the fire was being interpreted remained a present threat, especially for forms of media like panoramas that offered sensationalized and simulated views of the original fire that could be replayed seemingly without end and like Spooner's Protean Views, which granted media consumers control over how the event "played" with notions of past and present. [29]

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[29] In the book version of this project, I will conduct a more sustained analysis of the immersive, fire-based media entertainments that were contemporaneous to this event, such as firework displays, dioramas, and panoramas.

Chapter 4
Subterranean Fire in the Sky: Animating Vesuvius in Victorian Imaginations

During the 52nd meeting of the British Association for the Advancement of

Science in 1882, Sir John Lubbock predicted that Britannia would overcome inefficient

fossil fuels by "summoning subterranean fires from the centre of the earth" to heat

fireplaces and manufactories, to which an audience of 1,100 members and associates

responded with a hearty "Hear, hear" ("The British Association").[1] Lubbock's faith in

Britannia's ability to harness subterranean fire in service of heat, light, and industrial

energy was, of course, overstated, especially since a temperamental electric light

installation that "flickered terribly and was very trying" had interrupted his jubilee speech

the previous year (Hutchinson 175). Despite the technological improbability, Lubbock's

tantalizing prediction prompted one reporter to hail him as a "Modern Magician," and to

exclaim, "Imagine all the railways in Italy worked by wires from the fires of Mount

Vesuvius!" ("The Prophecies of Modern Magicians"). This imaginative leap from

Britannia's industrial prowess to Italian landscapes represented a form of cultural

imperialism that appropriated, Anglicized, and spectacularized Vesuvius and Pompeii for

British audiences throughout the nineteenth century. Imbued with the language of

thermodynamics, industrialization, imperialism, and entertainment media showmanship,

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[1] Lubbock also predicted deriving energy from winds and tides to replace furnaces and steam engines, and he made these conjectures while handing the presidency over to Dr. Siemens, a man whose "life has been to economize and to utilize the forces of nature for the benefit of man" ("The British Association"). It is worth noting that Lubbock's jubilee address at the 1881 meeting was immensely popular: Charles Darwin wrote a letter to congratulate him, and *The Athenæum* described the address as "nothing less than the history of half a century's work in almost every department of natural and physical science" and as "a panoramic display of the sciences" ("Address delivered at the York Meeting of the British Association for the Advancement of Science" 297, 298).

both Lubbock's speech and the reporter's imagination expose a Victorian imperial

fantasy that traversed topographical territories and penetrated the Earth's surface. When

deployed in scientific and popular discourse, the myth of subterranean fire provided an

inexhaustible narrative technology to drive the real, imaginary, and ideological engines of

British imperialism.

Vesuvius is central to the Victorian fascination with, and horror of, subterranean

fire as an indomitable force, a potential source of fuel and energy for industrial machines,

and a source of spectacular entertainment. Often romanticized as an abrupt encounter

with the past, volcanic eruptions rupture linear space and time by staging a potentially

fatal confrontation between modernity and subterranean fire. Vesuvius's destruction of

Herculaneum and Pompeii in 79AD remains one of the most infamous eruptions because

the volcano is the most widely reproduced fount of subterranean fire in art, literature, and

mass media. Beginning in the eighteenth century, Vesuvius became a popular stopping

point on the Grand Tour, and it was later visited by notable figures such as Edward

Bulwer-Lytton, J. M. W. Turner, George Eliot, and Charles Dickens.[2] Vesuvius in the

nineteenth century offered a thrilling geological connection to the 79AD eruption. In

contrast to the animating, life-giving properties of Promethean fire that I discussed in the

first chapter, the architectural and human remains at Herculaneum and Pompeii

confronted nineteenth-century viewers with a horrific vision: the Promethean myth

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[2] In the eighteenth century, famous guests of Sir William Hamilton would often enjoy
Lady Hamilton's tableaux vivants performed in front of windows that framed the conical
summit in the background, a thrilling performance of life imitating stillness before the
very volcano that had snuffed out ancient Roman lives. Darley describes the awe-
inspiring view outside the Hamiltons' window (73), and Nead (70) and Amery and
Curran (150) describe the *tableau vivant* performances.

reversed, bodies apparently consumed by fire and ash, and flesh transformed back into clay. The fascination with Pompeii and suspended animation is part of what Lynda Nead describes as the "continuous interplay in the nineteenth century between the fantasy of the inanimate object that comes to life and the dream of the living body that turns to stone" (*Haunted Gallery* 69). The plaster statues of Pompeii's victims, a technique innovated by Giuseppe Fiorelli once he assumed control of the Pompeii excavation in 1865, manifested this reanimating potential in plaster and ash. The haunting and enduring appeal of Pompeii's emergence from its fiery tomb had begun three decades earlier as images from the excavation circulated widely in print and visual cultures, such as Sir William Gell and John P. Gandy's richly illustrated *Pompeiana; the Topography, Edifices and Ornaments of Pompeii* (1817-1832), and notable paintings such as J.M.W. Turner's *Vesuvius in Eruption* (1817-1820).[3] In 1834, Sir Edward Bulwer-Lytton's massively popular historical novel *The Last Days of Pompeii* debuted just two months after Vesuvius's 1834 eruption, "giving the book an immediate topicality" (St Clair and Bautz 368).

Subsequent eruptions ensured continual interest in Vesuvius and subterranean fire and renewed interest in Bulwer-Lytton's novel as well as its theatrical and media adaptations. Vesuvian entertainments proliferated alongside a diverse range of entertainment media innovations until Vesuvius erupted so frequently in nineteenth-century England as to be called a "dependable old subject" by cultural historian Richard Altick (161). In his 1871 work of popular science *Subterranean Worlds*, Georg Hartwig

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[3] For a list of Vesuvius paintings, see St Clair and Bautz (360) and Darley.

speculated that Vesuvius's relative proximity to England partially contributed to its

popularity among British audiences (61-62). However, the late nineteenth-century

obsession with Vesuvius, which Isobel Armstrong describes as "compulsive" (262),

reflects more than mere geographical proximity, and it also exceeds what Billie Melman

calls the Victorian "commodification of the past" (467).

As the imagined agent of destruction at Herculaneum and Pompeii in 79AD,

subterranean fire represented an ancient and continued threat to civilization as well as a

natural spectacle that could be harnessed for mass entertainment. As David Pyle has

demonstrated, the concept of subterranean fire remained central to scientific and popular

accounts of volcanic activity throughout the nineteenth century. This confluence of

elements contributed to the thrilling dramatic effects made possible by the analogous

connection between volcanic fire and theatrical pyrotechnics; an 1823 stage adaptation of

Mary Shelley's *Frankenstein*, for instance, concludes with the creature throwing himself

into the crater of Mount Etna.[4] Vesuvius's subterranean fire and the ossified Pompeii

provide a particularly important case study for how narrative and visual technologies

work through issues of energy, pre-historical and modern time, and virtual travel. I argue

that representations of Vesuvius's subterranean fire in literature and media reveal an

anxiety central to the British imperial project by questioning how the industrialized,

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[4] For the persistence of subterranean fire in scientific and popular descriptions of
volcanoes, see David Pyle's "Visions of Volcanoes." Nicholas Daly discusses the 1823
play, *Presumption; or the Fate of Frankenstein*, in relation to volcano entertainments in
The Demographic Imagination (30). As many scholars have noted, Mount Tambora's
1815 eruption indirectly influenced Mary Shelley's *Frankenstein* because it caused the
inclement weather during the "Year Without a Summer" that inspired Shelley to begin
Frankenstein during a ghost story competition with Percy Shelley and Byron.

technologized British Victorian empire can exploit the illegible subterranean forces. The obsessive representation of Vesuvius and Pompeii across forms of media reflected a desire to freeze the moment of catastrophe and to manipulate that moment by technologically reproducing the time before, during, and after the catastrophe. Narrative strategies and technological apparatuses allowed Britannia to assert the mastery of hand and eye over subterranean fire, providing a fantasy of Victorian imperialism and industrialism that could surmount natural disasters and suggesting that the past could be manipulated into the service of technology and empire.

I argue that subterranean fire persisted in visual and textual accounts of the destruction and preservation of Pompeii because fire is a more spectacular element than mud and ash, and because it offered a tantalizing possibility: if subterranean fire could extinguish a human spark, could media technologies reanimate it? Moreover, could industrial machines channel the energies of subterranean fire into the service of industry, nation, and empire? Volcanoes are dialectical spaces between the realms of above and below because their surface appearances are formed by unseen machinations, and when subterranean fire surfaces through fissures in the earth's crust and erupts from volcanic vents, it offers spectacular views, a source of scientific inquiry, and an occasion for philosophical contemplation. This chapter will examine the metaphorical ruptures that occurred when Vesuvius's destruction of Pompeii was recreated across literature, additional forms of print and visual media, and mass media entertainments. The desire to harness subterranean fire for practical applications coexisted alongside a desire to harness subterranean fire for sheer spectacle. Regardless of the utilitarian or spectacular intention,

literature and media entertainments make otherwise imperceptible geological processes

legible to modern audiences. Literature and media present geological time – measured

either as a slow erosion or as a catastrophic eruption – as quickly rendered, easily

manipulated, and reorganized according to the viewer's pleasure instead of being subject

to larger, indomitable processes of geological processes or sudden catastrophes. This is

particularly important for understanding how geological and industrial time provide

dueling fantasies of rigid regulation while also revealing the destabilizing concept that all

that is solid melts into air, or as Daly notes with panache, "all that is solid disappears

beneath fiery lava and pyroclastic ash" (*Demographic Imagination* 17). Since

subterranean fire itself was a fictional element, Vesuvian entertainments simultaneously

and inadvertently exposed empire as a fiction. This chapter will first examine the concept

of subterranean fire before analyzing how images of Vesuvius and Pompeii circulated in

print and entertainment media.

The Myth of Subterranean Fire in the Nineteenth Century

Since the eighteenth-century Neptunist and Plutonist debate about whether water

or fire formed basalt rock, the concept of subterranean fire has remained central to

geological inquiries into the origins and continued machinations of the material world.[5]

Subterranean fire was conceptualized as a prehistoric element that moved continents and

erupted from volcanoes, igniting Victorian scientific and popular imaginations and

cohering a range of discourses from geology to industry, and from thermodynamics to

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[5] See Ralph O'Connor for more information about this debate (47).

fantasies of primitive worlds still living in the Earth's subterranean chambers. Victorians perceived subterranean fire as an endless source of intellectual, creative, and industrial energies, an agent of animation and destruction that became a narrative and visual technology across various media platforms, which is emblematic of how Victorians understood thermodynamics and the law of the conservation of energy. As Allen MacDuffie explains, the law of conservation mandates that energy can neither be destroyed nor created, which "suggested to many Victorians a universe of almost infinite energetic plenitude just waiting to be tapped by human industry" (4). Though subterranean fire appeared to be a potential source of limitless energy that could fuel an efficient, technologized, and industrialized empire, it also threatened to exceed man-made systems.

The term "subterranean fire" already exceeds physical and scientific boundaries, replacing molten lava with flames, and consequentially pivoting away from scientific discourse to invoke a much more romanticized and Promethean image of fire as the first natural technology tamed in service of civilization. Robert Mallet addressed the confusion caused by conflating lava and fire in the "First Report on the Facts of Earthquake Phenomena," delivered to the British Association for the Advancement of Science in 1850:

> The term volcanic *fire* has been so long used, and so loosely, and become so habitual, that its abuse has produced in almost every mind, a conception of chemical interchange of elements, *of fire in its popular sense*, in which something enters into combination with something else and *burns* with a true combustion (like that of a metal in chlorine, or of coal or wood in the air), as a true representation of the heat of the inner portions of the earth, the external manifestations of which we behold in the volcano. Yet nothing probably can be further from the truth; the main phaenomena of

volcanic action, so far as we know them, are those of *ignition, up to the point of liquefaction of solid bodies incapable of any combustion;* nor is there any evidence of this ignition being produced or maintained by the consumption of a fuel, *i.e.* by chemical combination, in which a body, or part of a body, before solid, becomes gaseous. (76, original emphasis)

Mallet's description of the habitual misuse of "volcanic fire" demonstrates that the affective and imaginative power of volcanic, or subterranean fire supersedes other nineteenth-century tendencies towards scientific precision and classification. The phrase conflates various disasters, from volcanic eruptions to industrial fires, because the imagined agent of destruction is the same. Though it is a misleading concept, narrative and visual technologies kept invoking subterranean fire as a way to re-write cyclical, uncontrollable, and natural processes, thereby recasting natural disasters in ways that could be managed and mastered. The habitual conflation of hearth fires and volcanic eruptions underscores a nineteenth-century desire to quell anxieties about natural disaster, to assert modernity by subduing pre-history, and to assert mastery by figuratively playing with fire. Subterranean fire was an especially potent symbol for England because of the haunting presence of the 1666 Great Fire of London; by invoking subterranean fire in literature and media entertainments, as we will see with James Pain's pyrodramas at the end of this chapter, England not only asserted dominance over pre-history, but it could attempt to re-write its incendiary past.

The constant invocation of subterranean fire throughout the nineteenth century displaced the emerging lexicon of volcanology – such as pyroclastic flows, tuffa, and pumice – by glossing popular understandings of geological processes as combustive,

mechanical, and industrial.[6] The parallels between geology and industrialization are evident in Charles Lyell's seminal 1832 *Principles of Geology*, which describes "earthquakes," "gaseous vapours," hot springs, and the mineral composition of volcanic eruptions as "evidence that the subterranean fire is at work continuously" (360, my emphasis). The continuous labor of subterranean fires results in perceptible products above ground, making subterranean fire legible while also appealing to the Victorian values of work and control. This industrial imagery also appears in narrative accounts that compare Vesuvius's fiery crater to furnaces or the sounds of artillery. Merging geological, industrial, and military imagery, while not a new phenomenon, accrued additional symbolism in the nineteenth century because, according to Adelene Buckland, "it was in the nineteenth century that the study of the earth became central to the economic and cultural life of the nation" (*Novel Science* 1).

Even though natural processes were principally the subjects of scientific discourse, the fears they excited were very much a part of popular imaginations. For example, in an 1865 issue of *All the Year Round*, subterranean fire occupied a large portion of an exegesis of "False Fears." After addressing the related fears of failing coal beds and deadly urban conflagrations, the article reports nightmarish visions of subterranean fires that extinguish entirely or that too-forcibly erupt:

> Some live in a vague alarm of subterranean fire and the stopping up of volcanic vent-holes, when we shall have such an explosion as will send us spinning – who knows where? – perhaps as far as Jupiter, or, it may be, to be brought up by Saturn's belts; others make long faces at the thickening

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[6] Consult David Pyle's "Visions of Volcanoes" for a concise history of how volcanology emerged as scientists and travel writers visited Vesuvius, Etna, Pelée, Krakatoa, and other "fiery volcanoes."

of the earth's crust and the cooling of those same fires, and foresee the time when we shall be all snow men, living on a huge ice-ball. ("False Fears" 202)

Although the article reassures its readers that these fears are false, the passage expresses the popular conception of subterranean fire as a tremendous geo-industrial energy capable of moving not just continents, but of hurtling the entire planet through the cosmos.

The thrills that subterranean fire excited when carefully managed on page, stage, or screen easily slipped into excitable fears about Britain's role as an imperial, global power. Just two months after Vesuvius erupted in August 1834, thousands of spectators gathered to watch as the Houses of Parliament burst into flames. As we saw in the previous chapter, periodicals compared the flames to a volcanic eruption, and Thomas Hood's 1835 *Comic Annual* heightened the drama of the event by exclaiming, "England is gone to Italy – London is Naples – and we are all standing on the top of Vesuvius" (41). Invoking Vesuvius as a touchstone for the burning of the Houses of Parliament suggests subterranean fire's potential to rupture time and space by ejecting a pre-historical and destructive force into the present, and the comparison between London and Naples further suggests that the imperial metropole could meet the same end as ancient Pompeii. While British readers of Bulwer-Lytton's 1834 novel found a sense of divinely meted justice in Vesuvius's destruction of a decadent Roman civilization, the parallels

between the British and Roman empires became more unsettling as the century progressed.[7]

Though Victorian literature and media entertainments deployed subterranean fires to reinforce real and imagined industrial engines, the element underscored the fragile fictions of British imperialism and nationalism, and a series of relatively minor Vesuvian eruptions throughout the century continued to renew popular interest in subterranean fire while facilitating the spectacular leap from Vesuvius's volcanic activity to British urban conflagrations. Subterranean fire was a crucial but fraught element for facilitating the ideological myth-making of the British empire. Subterranean spaces both thwarted and facilitated developments in archaeology, geology, and thermodynamics while literature and various forms of media entertainments offered an imaginative extension of British imperial and scientific fantasies.[8] Nineteenth-century literature and media entertainments link subterranean spaces and fires with pre-history or antiquity, but it is important to remember that subterranean spaces participate in narratives of progress.[9] The imaginative extension of imperial vision through subterranean narratives coexisted alongside real, material networks, such as the Paris Catacombs and London's underground railway and subterranean gasworks.

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[7] St Clair and Bautz attribute this moralizing view to Bulwer-Lytton's infusion of Christianity into the story of Pompeii, which becomes a correlate for Sodom and Gomorra (364).

[8] Jules Verne's *Journey to the Center of the Earth*, published in France in 1864 and translated for English speakers in 1871, epitomizes this fantasy of exploring underground.

[9] For further discussion of the subterranean networks and the imagination, see Buckland's *Novel Science* and O'Connor's *The Earth on Show*.

Reanimating Pompeii continues to be a project in the industrial era because juxtaposing subterranean fire and industrialization helps us make sense of why the "catastrophe" narrative was so important as the century progressed. The architectural and human remains unearthed by archaeologists offered an occasion for meditating on catastrophic events as spontaneous, indomitable, and apocalyptic. The Roman cities also provided an opportunity for meditating on subterranean fire as a catastrophic force that convulsed beneath the earth until, eventually, it not only ruptured physical boundaries between above and below, but also ruptured linear, chronological time by ejecting a pre-historical force into the present. The archaeological excavations at Pompeii unearthed these concerns in tangible ways. Representations of Pompeii and Vesuvius in literature and media let us examine how print and visual media used different narrative, visual, and animation technologies to make subterranean fire legible to audiences who were increasingly diverse in terms of class and access to forms of literacy, and who were interested in discourses such as geology, thermodynamics, art, archeology, history.

"The City of the Dead": Reanimating Pompeii from its Ashes

Literature and mass media entertainments perpetuated the myth that Pompeii was consumed by subterranean fire despite archaeological evidence that mud and ash had buried the ancient city. As Georg Hartwig notes in *The Subterranean World* (1871), mud, sand, pumice, and lapilli (fragments of rock) had buried Herculaneum and Pompeii, not molten lava, which made it possible for the cities to be "so perfectly preserved as to form a Museum of the Past for the admiration and instruction of future ages" (85). However,

the myth of subterranean fire paradoxically destroying and preserving Pompeii permeated visual and textual narratives and was reinforced by travelogues narrating expeditions to the volcano's summit and peering into the fiery crater below.

Once excavations of Herculaneum and Pompeii commenced in the early decades of the eighteenth century, the ancient Roman cities offered Grand Tourists a tangible encounter with antiquity. Herculaneum was the first city to undergo excavations in 1738 and was initially more popular, but Colin Amery and Brian Curran credit the unearthing of the Temple of Isis in 1764, almost twenty years after Pompeii's excavations had begun in 1748, as a turning point in Pompeii's popular reception (37). Vesuvius had entombed Herculaneum in boiling mud measuring hundreds of feet deep in some places, and later eruptions had added layers of molten lava, meaning excavations proceeded at an excruciating pace and the efforts to expose limited, fragmented views occasionally damaged the human and archaeological remains.[10] Excavations at Herculaneum ceased in 1765, but continuing excavations at Pompeii unearthed antiquity in a more aesthetically appealing way that perpetually renewed artistic, archaeological, philosophical, theatrical, and literary interests in reanimating the past. By 1813, "a lost

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[10] George Scharf's guidebook to the Pompeian Court at the 1851 Sydenham Crystal Palace includes extracts from his journal written during an 1843 visit to Pompeii. As he extols the beauties of Pompeii, he references a prior visit to Herculaneum, a city he "compare[s]…to a geological fossil half worked out of the compact material which surrounds it" (30). In a similar vein, *Cook's Tourist Handbook for Southern Italy* (1864) concludes that "Herculaneum is far more interesting to read about than to see, while Pompeii is a thousand times more interesting to see than to read about" (267). Scharf, Gell, and Hartwig are my sources for information about the physical details of Herculaneum's internment.

world appeared to have been recovered from darkness" (Amery and Curran 41).[11]

Surveying a museum collection of artifacts recovered from Herculaneum and Pompeii

during his travels through Italy in the 1820s, Nathaniel Carter remarked, "Time seems to

have paused as it regards the contents of this cabinet, and the lapse of nearly two

thousand years to be annihilated" (232). The sensation of time travel that Carter perceives

in archaeological objects became a popular sensation for tourists at the Pompeii site;

since the city's remains emerged more easily from the ashes, visitors could wander its

ruins and experience the pleasurable annihilation of space and time. By the middle of the

nineteenth century, Pompeii became the preferred location for a more diverse array of

real and virtual tourists. As Pompeii gradually surfaced, Vesuvius erupted somewhat

regularly in the background, vexing the borders between antiquity and modernity even

further with the visceral knowledge that Vesuvius could once again rupture the

boundaries between above and below, past and present, and the living and the dead.[12]

The human and archaeological remains that emerged from Pompeii's ashes,

uncannily suspended in the moment of catastrophe, sparked a widespread and enduring

interest in re-animating what Sir Walter Scott called "The City of the Dead."[13] Victorians

felt a strong affective connection with the ancient Pompeians because the preserved

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[11] Excavations at Herculaneum and Pompeii paused and resumed at different times. Unless otherwise noted, Amery and Curran's *The Lost World of Pompeii* (2002) is my source for historical information about Pompeii's excavations. The excavation history at Herculaneum and Pompeii is also described in Gell (43) and Hartwig (108).

[12] For a chronology of these eruptions, see Gillian Darley's excellent history of Vesuvius.

[13] In a footnote in *The Last Days of Pompeii*, Bulwer-Lytton reports that Sir Walter Scott's haunting refrain, "The City of the Dead! – the City of the Dead!", was "almost his only remark" while touring Pompeii with Sir William Gell (1: 276).

details of daily life – graffiti, market prices, food, cutlery, and even pornography – were hauntingly familiar. The juxtaposition of living tourists and human and archaeological remains conflated the spaces of the living and the dead and collapsed the spatio-temporal distance between ancient Pompeians and nineteenth-century tourists. Tourists often remarked on the macabre sensation of physically inhabiting a dead city, and the potential for reanimation haunted the city's representations in prose, paint, and mass media because subterranean fire, the imagined agent of Pompeii's destruction, signaled both destruction and reanimation. Reanimating skeletons and plaster figures was, of course, just a fantasy, but it was populated with archaeological artifacts and fuelled by what Kate Flint calls the Victorian desire to render the "unseen" "seen," or, more specifically, "to excavate the subterranean, to bring to the surface that which lies hidden and dormant" (*Victorians and the Visual Imagination* 139). Excavations destabilized temporalities and it made the "unseen" visible while also, paradoxically, remaining partially interred and inaccessible to the human eye. While I agree that the Victorian fascination with Pompeii is about the pleasure of rendering the unseen visible, it is primarily about reanimation, and the project of reanimation persisted in print, paint, and entertainment media technologies.

For Victorians, Vesuvius interred antiquity in a fatal moment that could be reactivated in the present. Sir William Gell described this temporal paradox stating, "Remote antiquity is here combined with an air of newness which appears but the work of yesterday" (79). Given the aristocratic origins of the Grand Tour, this pleasurable confluence of temporalities was originally available to an exclusive coterie of travelers.

But Gell's illustrations for *Pompeiana: the Typography, Edifices, and Ornaments of Pompeii*, published between 1817 and 1832, exported a visual knowledge of Pompeian iconography to a more diverse audience in England. Gell utilized a camera lucida to illustrate *Pompeiana*, underscoring the joint efforts of textual and visual narrative technologies to collide temporalities and to bring the dead city to back to life through accurate and rich visual details. Gell explains that no extant document describes the "living history" of Pompeii, and so he quickly "turn[s] to [Vesuvius as] the magnificent engine of its fall" (33). Here in one of the earliest accounts of Pompeii's demise to become widely available, we find motifs that continue throughout the nineteenth century: imagining Vesuvius in industrial terms and the confusing the means of destruction, claiming that the cities were "overwhelmed" by "boiling stony mud" in 79AD and also "devastated by torrents of liquid fire" during later eruptions (34). Despite Gell's distinction between kinds of volcanic materials generated during different eruptions, his powerful evocation of subterranean fire superseded fact, a tend that continued in other print and entertainment media.

Despite archaeological evidence that mud and ashes had buried Herculaneum and Pompeii, paintings, literature, and mass media entertainments perpetuated the image of ancient Roman cities consumed by torrents of liquid subterranean fire. This myth became especially potent with regards to Pompeii because the city's biological and architectural remains of antiquity seemingly came back to life for nineteenth-century audiences. For Felicia Hemans, the haunting tactility of a maternal embrace enshrined in subterranean fire collapsed the spatio-temporal distance between ancient Pompeians and the present.

Hemans's 1828 poem "The Image in Lava" meditates on the affective and imperial histories unearthed during archaeological digs at Pompeii.[14] The first two stanzas register the shock of encountering the immeasurable passing of time by addressing the figure of a child wrapped in its mother's embrace:

> Thou thing of years departed!
>   What ages have gone by,
> Since here the mournful seal was set
>   By Love and Agony!
>
> Temple and tower have moulder'd,
>   Empires from earth have pass'd, --
> And woman's heart hath left a trace
>   Those glories to outlast! (Hemans 156-157)

Since maternal affection has outlasted man-made constructions, and "woman's heart" has left a more indelible trace than any imperial edifice, Hemans's poem expresses the anxious questions that surfaced alongside the emerging remnants of Herculaneum and Pompeii: how reliable is linear time if it can be arrested in a moment by a sudden catastrophe? And how beneficial is imperialism if a sudden catastrophe or the natural passing of time will reduce its material monuments and legacies to ash?

As the title "The Image in Lava" suggests, lava has washed away written records, leaving behind only images that become occasions for the production of later literary works. Addressing the infant in the fourth stanza, the speaker exclaims, "Babe! wert thou brightly slumbering/ Upon thy mother's breast,/ When suddenly the fiery tomb/ Shut round each gentle guest?" (157). Hemans's juxtaposition of the mother and babe's

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[14] Hemans attributed the inspiration for her poem to a figure discovered in Herculaneum, but Isobel Armstrong notes that the impression was found in Pompeii, see "Natural and National Monuments – Felicia Hemans's 'The Image in Lava': A Note," p. 214 and the related endnote on p. 228.

"gentle" embrace on the mother's breast, and the sudden, fatal touch of the "fiery tomb" underscores the fraught emotions of recovering the material traces of the human encounter with subterranean fire: tenderness, horror, awe, and fascination. As the poem proceeds, it alternates between the language of fire and dust, imagining "the fiery tomb" as well as the babe "[o]n ashes here impress'd" and human love's "print upon the dust," suggesting that the affective and poetic power of subterranean fire supersedes the material realities of Pompeii's destruction (157).

The emotive power of the mother's tender embrace allows the speaker, and the reader, to travel virtually into the past through empathy and to more viscerally feel the moment of destruction. The poem was also an act of virtual travel for Hemans herself who never saw Herculaneum or Pompeii firsthand and, according to Andrew Stauffer, probably learned details of the sites from Nathaniel Carter's *Letters from Europe*, which included a description of a skeleton of a mother and child found at Pompeii (375). Hemans's fascination with the confluence of temporalities is reminiscent of Carter's affective response to a museum's display of artifacts unearthed from Vesuvius's ashes, but for Hemans neither the careful arrangement of curiosities in museums nor the artisanal merits of the artifacts themselves can fully annihilate space and time. Instead, Hemans's poem suggests that only literature can bridge temporalities by communicating maternal affect through the reanimated emotions of ancient Pompeians.

The annihilation of time and space, while described and simulated in print media, also incited actual travel for tourists who wanted to experience the charged potential of suspended animation in subterranean fire more directly by standing in the City of the

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Dead. During her travels through Italy in 1860, George Eliot, like Hemans, imagines the cities of Herculaneum and Pompeii as overwhelmed by liquid fire when she describes remnants of everyday artifacts in her travel journal, such as a bottle of "wine mixed with the lava" (Eliot 356). For Eliot, recovered artifacts offered a legible record of affective tactility – the vivid details of Pompeian daily life forged a connection across time that seemed at once phantasmagoric and tangible. After noting the looming figure of Vesuvius in the background, almost out of a sense of obligation, George Eliot writes with tender fascination about the "endless objects…[that] tell of our close kinship with those old Pompeians" (356). Riveted by "loaves [of bread] with the bakers' names on them" (356), Eliot then catalogues similar material traces of human touch: "…paste in the vessel, imperfectly mixed, linen just wrung in the washing…" (356). Tellingly, many of the items are caught in suspended animation provocatively suggesting that ancient hands had wrung the linen just moments before Eliot's arrival, and producing an unstated illusion that those same hands would return at any moment to finish mixing the paste and to put away the clean linen. The kinship that Eliot felt with the ancient Pompeians formed because of the perceived proximity of the action – the impossible appearance of immediacy – and the familiar objects augmented the feeling of ruptured time: antiquity was both close and distant. Both Hemans and Eliot exemplify an enduring literary fascination with how subterranean fire ruptured space and time and left the city in a state of suspended animation, and this literary attempt at reanimation coexisted alongside other artistic and technological attempts to bring the City of the Dead back to life.

The myth of subterranean fire destroying and preserving Pompeii persisted because it is a more spectacular element than mud and ash, and it fueled a nineteenth-century desire to reanimate the inanimate. The unearthed human forms at both Herculaneum and Pompeii appeared frozen in motion, but some of the remains gradually "moved" as they continued to decay, and these disintegrating remains initially refused the Victorian desire to imbricate temporalities and to resuscitate the past for present pleasure and education. As a result, some of the skeletons found during early excavations at Herculaneum and Pompeii were preserved and in prose only, imperfectly reanimated for future readers. However, Signor Giuseppe Fiorelli approximated the Promethean task of animating clay into flesh when he took over excavations at Pompeii in 1863. Fiorelli noticed human-sized pockets encased in the ash, and surmised that they were remnants of human bodies that had decomposed but had left an impression on the surrounding ash. The now famous Pompeii plaster statues were achieved by pouring plaster into ashen cavities, human-shaped molds left in layers of ash and pumice as the bodies decayed. The plaster revealed impressions of facial features, expressions, and even details from garments. The plaster statues of the victims' bodies emerged from the past in a state of suspended animation – flesh transformed back into clay. Although an 1882 *Pall Mall Gazette* review of Fiorelli's "portrait statues" correctly states "that the lava stream did not reach Pompeii, and that the city was not destroyed by fire", suspended animation remained central to the review's evaluation of the statues, claiming that once the "surface crust of ash is peeled off, . . . the man or woman comes back to life again" ("The Victims of Pompeii").

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The 1882 article in the *Pall Mall Gazette* details Fiorelli's plaster mold process

and applauds his innovative technique for solving the problem of preserving human

remains in text only, such as the 1831 "Journal of Excavations," because "such records

are lifeless and tame indeed beside the extraordinary portrait statues which are now to be

seen in the little museum at Pompeii. There are nine of these, or were a very short time

since, and to see them is like seeing the men and women themselves of eighteen centuries

ago" ("Victims of Pompeii"). The article creates a hierarchy of media forms for bringing

the men and women of eighteen centuries ago "back to life again": written records,

though composed on the spot, are "lifeless" and "tame" whereas "portrait statues"

annihilate space and time. The aesthetic evaluation of the portrait statues as "striking and

complete" also levies a physical weight behind the viewer's experience of encountering a

reanimated Pompeian.[15] Fiorelli's process recovers an absence and transforms it into a

positive presence. These plaster figures, more so than any other media representation, are

"striking and complete" because they are formed from the traces of actual human flesh –

impressions of vitality fossilized in ash and newly exposed in three-dimensional form.

The positive response to Fiorelli's portrait statues, the morbid desire to reanimate

Pompeii in its fatal and final moments, stems from the fascination with subterranean fire

and a desire to more perfectly capture and preserve the moment of catastrophe. The

reality of Pompeians suffocated by gaseous vapors and buried in ash and mud was less

thrilling than imagining the city's destruction by subterranean fire. The widespread

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[15] In the book version of this project, I will explore the similarities this process shares
with developing photographic negatives and explore connections with Walter Benjamin's
concept of "shock."

insistence on imagining Pompeii covered in lava reveals the Victorians' apocalyptic

imagination that worried about catastrophic change, a sudden and non-linear interruption

in perceptions of linear, chronological time. The affective power of subterranean fire

becomes more prominent in textual and visual media adaptations of Vesuvius and

Pompeii: in Bulwer-Lytton's 1834 *Last Days of Pompeii* and the reanimation of Pompeii

at the Sydenham Crystal Palace in 1854.

Pompeii in London: "As it Is" and "As it Was"

In the previous section, I examined literary representations of the annihilation of

space and time: the shocking juxtaposition of antiquity and modernity felt at the same

time. In this section, I will consider the role of subterranean fire in representations of

Pompeii "as it is" and "as it was," two phrases that reoccur across a variety of

advertisements for Vesuvian exhibitions and media entertainments: the thrill of seeing

Pompeii "as it was" and seeing it "as it is." As a larger audience became more visually

literate about the excavations at Pompeii, literature and other forms of media capitalized

on the desire to see Pompeii "as it was" and "as it is," signaling a desire to command

spatio-temporal distances, to accurately simulate travel, to rewind time, and to ignite or

extinguish subterranean fire with the turn of a page or a flick of a switch.

First, it is important to examine the spatio-temporal narrative travel in the literary

predecessor that inspired later exhibitions and media adaptations: Sir Edward Bulwer-

Lytton's *The Last Days of Pompeii* (1834). Bulwer-Lytton's massively popular historical

novel reanimated Pompeii "as it was" on the cusp of disaster. I am not the first to suggest

that the novel is a form of textual or literary reanimation. Nicholas Daly states that

"necromancy" is the book's "mission" and claims that the novel inspired a proliferation

of volcano narratives (*Demographic Imagination* 38, 32). Without forgetting Bulwer-

Lytton's contributions to the volcano narrative as a genre, I want to focus on the

particularities of the novel instead of evaluating the novel within a larger genre. The

novel recreates in words an architectural verisimilitude of Pompeii "as it was" and prides

itself on facilitating the reader's imaginative travel to the past through historically

accurate details. Bulwer-Lytton's novel attempted to perfectly reanimate Pompeii "as it

was," to provide an apparently unmediated presentation of the past, but the narrator, as

Daly notes, interrupts the narration of past actions with present commentary, and

continually reminds the reader of their present reading moment (38-39). Instead of

focusing on the artifacts found in Pompeii "as it is" like Carter and Eliot, or the ossified

human remains like Hemans, Bulwer-Lytton humanizes the catastrophe by creating

individual characters.

The confluence of temporalities felt by tourists visiting Pompeii was essential to

the novel's simulation of virtual travel through form and content. The opening paragraphs

of the novel rely on the reader's pre-existing knowledge of Pompeii "as it is" in order to

create a startling juxtaposition with the narrative recreation of Pompeii "as it was." One

of the first settings is the Via Domitiana, which the narrator describes as "crowded with

passengers and chariots, and exhibited all that gay and animated exhuberance of life and

motion which we find as this day in the streets of Naples" (1: 5). Invoking the crowds,

animation, and life of present-day Naples, the novel deftly demonstrates that print and

paper can annihilate time and space and reanimate the City of the Dead. The explicit invocation of animation and stillness continues when the narrator describes horses drawing a chariot and remarks on the skilled driver who, with the slightest touch, could render the horses "motionless, as if suddenly transformed into stone – lifeless, but lifelike, as one of the breathing wonders of Praxiteles" (1: 6). The description suggests that the characters and scenes that the reader will encounter are similarly "lifeless, but lifelike," hinting at Bulwer-Lytton's skill at bringing them to life and simulating, in print, a confluence of temporalities that had been formerly reserved for those who could afford to travel to the City of the Dead in person.

The juxtaposition of antiquity and modernity and the tropes of animation and reanimation appear in the novel's formal elements as well. For example, each chapter number has a subheading with plot points, which complicates the idea of narrative time unfolding chronologically because events have already happened in the title ahead of narrative action. While listing key plot points in the chapter subheadings was commonplace in Victorian novels, it is particularly uncanny in this instance. The unfolding of narrative time is further complicated on a syntactical level. Unable to corral all of his present reflections into parenthetical asides, Bulwer-Lytton of self-consciously waxed poetic about the passing of time: "His [Glaucus's] retreat in Pompeii— alas! the colors are faded now, the walls stripped of their paintings!— its main beauty, its elaborate finish of grace and ornament, is gone; yet when first given once more to the day, what eulogies, what wonder, did its minute and glowing decorations create— its paintings— its mosaics!" (1: 32). On a syntactical level, the narrator interrupts the

description of Glaucus's retreat "as it was" with an extended aside about Pompeii "as it is." In other words, the present predates the past: the reader sees decay before the original, resulting in an obstructed view of an imagined past that heightens the process of mediation. The narrator's extradiagetic knowledge sometimes intrudes in subtler ways, such as the description of Glaucus's abode as a "disburied house" (1: 32) which abruptly reminds the reader once again that the present action they are experiencing in the narrative was suspended violently in the past and is being reanimated, consciously, in the present.

Given the critical, commercial, popular success of Bulwer-Lytton's novel, which William St Clair and Annika Bautz have researched, it is not surprising that the story was immediately adapted for the stage and other forms of media entertainments. I argue that the narrative's attempt to reanimate Pompeii borrows from existing forms of media, such as the diorama and panorama, and anticipates the future capabilities of technologized animation. For example, the narrator acts as an impresario showing the reader a diorama of the past: "Advancing up the vestibule you enter an atrium, that when first discovered was rich in paintings, which in point of expression would scarcely disgrace a Rafaele. You may see them now transplanted to the Neapolitan Museum: they are still the admiration of connoisseurs— they depict the parting of Achilles and Briseis" (1: 39-40). These instructions frustrate the novel's goal of reanimating the past and making the reader's experience unmediated. The instructions use "invitational language," to borrow Allison Byerly's term (13), which gestures towards an early-to-mid nineteenth-century desire to represent Pompeii in spatial dimensions, asking the reader to move through

narrative space in a way that mimics the movement of the body through an actual diorama or panorama (13). In an effort to cater to his audience's desire to inhabit space, Bulwer-Lytton reveals that narrative technologies and later animation technologies are necessary to annihilate space and time. And yet, paradoxically, these technologies expose the futility of this project because in an effort to erase time and space one becomes more materially aware of that time and space. In later adaptations, the ruse of an "individual's" experience with the event is foregone for a more flattened representation of human characters, prioritizing the spectacle of subterranean fire in the sky over the life-like re-animation or preservation of human experience of ancient Pompeians.

Two decades after Bulwer-Lytton's novel imperfectly reanimated Pompeii, the Sydenham Crystal Palace presented a semblance of domestic life in Pompeii "as it was" before Vesuvius's 79AD eruption. In 1854, visitors to the Pompeian Court at the Sydenham Crystal Palace could experience what Kate Nichols describes as a more immediate encounter with the past (61-62). The Crystal Palace created an architectural and aesthetic space that visitors could inhabit with relative ease, making virtual travel to Pompeii "as it was" available to an audience of more diverse textual and visual literacies.[16] A contemporaneous review published in *The Morning Post* described the Pompeian Court as "a complete and perfect whole, a domestic setting, not a ruin" (qtd. in Nichols 235). The domestic Pompeian setting appealed to the Victorian valorization of domesticity and further facilitated the now favorite pastime of feeling a connection with

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[16] Adelene Buckland notes that the 1850 Great Exhibition, the predecessor to the Sydenham Crystal Palace, similarly provided "more direct access" to exotic and archaic lands, and that the Pompeian Court competed with London's "numerous volcano shows" (*Novel Science* 257-258).

ancient Pompeians. The reanimated Court rewound time, allowing Palace visitors to populate the apparently empty space while experiencing the additional pleasure of knowing that the horrors of Vesuvius's 79AD eruption had been erased: the volcano snuffed and subterranean fire tamed. By incorporating ancient Pompeii into the iron-and-glass icon of British industry and modernity, Victorian England claimed Pompeian imagery as something that could be imported and recreated. However, similar to the narrative technologies that made the reanimation of Pompeii possible in Bulwer-Lytton's novel, the very structure of the Crystal Palace also exposed the fraught and paradoxical pleasure of more perfectly presenting Pompeii "as it was."

The Court's perfect representation is remarkable primarily because the viewer's mind can supplement it with visual imagery of "how it is now." The Court catered to a desire for a more immediate encounter with the past, but the perfect Pompeian decorative statues when contrasted with the Palace's corseted and carefully coiffed Victorian visitors vexes the Court's verisimilitude. This visual commodification of Pompeii at Sydenham participated in the Anglicization of antiquity, weaving it into a British national identity at a topographic level.

Contemporaneous guidebooks to London demonstrated Britannia's dominion over real and imagined topographies by officially relocating Pompeii within the metropole's exhibition and entertainment spaces. *Black's Guide to London and its Environs* (1863) notes that Pompeian frescoes may be seen in the British Museum (154), and offers a virtual tour of the Court: "Enter the court or atrium, with its tank in the middle, and observe the miserably small dens set apart for sleeping in. Into the ambulatory beyond,

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the dining-rooms, chief bed-chamber, and other apartments opened…." (347). By using "conspiratorial rhetoric" (Byerly 13), the London guidebooks' directions through a physical space further add to verisimilitude of an Anglicized Pompeii that reanimated the city's buried remains. *Cruchley's New Guide to London* (1862) compliments the merits of the Crystal Palace exhibition before quickly reminding the reader of Pompeii's sudden demise: "The *Pompeian Court* is an admirable reproduction of the domestic architecture in vogue at Pompeii - the lava-buried city, the city of the dead - at the epoch of its destruction by a sudden eruption of Vesuvius" (310). *Cruchley's* continues the fantasy of manipulating the catastrophe, of freezing the moment, by reminding the reader that Pompeii, in its present state, is a lava-buried, dead city whereas this reproduction transcends the boundaries of space and time, presenting Pompeii "as it was." Since *Cruchley's* describes the court at the moment just before its destruction, the Court, and by extension its London environs, are also imaginatively suspended in that moment. This fantastical description is remarkable because it directly contradicts Sir Charles Scharf's earlier and site-specific guidebook, *The Pompeian Court in the Crystal Palace* (1854). Scharf details the history of Herculaneum and Pompeii and their excavations, and clarifies that neither city was buried by subterranean fire: "the city [Herculaneum] was for a long time supposed to have been buried in lava, and the darkness and obscurity of the passages prevented the discovery of the truth. But now, since daylight has been admitted, the whole mass is found to be nothing more than hard tufa…" (20-21).

As the imaginative description in *Cruchley's* guide suggests, the myth of the lava-buried city, the City of the Dead, facilitates virtual travel to a reanimated Pompeii "as it

was." The persistent representation of Pompeii as a lava-buried city opens up new ways of understanding the construction of primordial and industrial time within narratives of imperial, technological, and media progress, and the desire for unmediated encounter with antiquity coexisted alongside a desire for an unmediated encounter with subterranean fire itself.

An "irresistible desire to get nearer to…the brim of the flaming crater"

Images of Pompeii and Vesuvius permeated British literature and culture, and the fascination with Pompeii as the "lava-buried city" gave way to an enduring fascination with subterranean fire itself. As travel became more democratized, a diverse array of travelers visited the Neapolitan landscape for a more immediate encounter with Vesuvius, and the volcano's regular activity had transformed subterranean fire into a somewhat dependable natural entertainment. The possibility of another unpredictable and potentially cataclysmic eruption did not deter Victorian tourists. Some intrepid explorers, including Charles Dickens himself, risked death to peer into the bowels of Vesuvius's fiery chasm. Reminiscing about his ascent in *Pictures from Italy* (1846), Dickens's increasingly feverish prose mirrors his physical exertions and the crater's immense heat.[17] He writes, "There is something in the fire and roar, that generates an irresistible desire to get nearer to…the brim of the flaming crater" (174). Dickens's account, like many

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[17] Prior to publishing *Pictures from Italy*, Dickens recounted this adventure in 1845 using the language of animation in his personal correspondence. See the letters addressed to Thomas Mitton (4: 267-271) and the Countess of Blessington (4: 302-305) in *The Letters of Charles Dickens*.

Neapolitan travel narratives, describes the typical guides that one would encounter and culminates in the expected climax: a dangerous ascent to the crater.[18] Despite the protestations of fellow travelers in his group, Dickens, another man, and a guide "climb[ed] up to the brim [on their hands and knees], and look[ed] down, for a moment, into the Hell of boiling fire below" (175). The harrowing depiction demonstrates that the ascent required strength, discipline, and bravery, especially when Dickens contrasts his heroic efforts with his less adventurous travelers – his wife, daughters, and a rotund gentleman – who were carried up the volcano in sedan chairs and who did not make the final ascent.

Dickens further underscores the danger of the trip by describing his company's treacherous descent – slipping on ice and tearing their clothes on jagged rocks of hardened magma. Dickens may have heightened the drama of his journey for entertainment, but the ascent to Vesuvius's crater remained treacherous even after a funicular railway increased access to the crater for commercial travelers in 1880. For example, in 1891, one newspaper reported that a scientist fell into a chasm that opened up on the side of the volcanic cone. Since the scientist had ignored his guide's instructions, the report compared his death to the "imprudent curiosity" and "untimely end" of several tourists six years earlier during the 1885 eruption ("Swallowed Up by Vesuvius").

The title of Dickens's 1846 travel narrative, *Pictures from Italy*, encapsulates in a single phrase the process of flattening and reproducing the topography and history of Pompeii into a consumable media experience. Dickens expressed frustration with prose

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[18] According to Darley, most travelogues culminate in the vision of, or journey up to, Vesuvius's crater (136-146).

as a medium for capturing his experiences, exclaiming, "What words can paint the gloom and grandeur of this scene!" (174). In fact, the description of his ascent appears in a chapter called "A Rapid Diorama," demonstrating that Dickens flexed the sensory boundaries of prose, as Kate Flint reminds us, by borrowing new, visual perceptual technologies from the diorama and panorama (*Victorians and the Visual Imagination* 146). Dickens, who was "fascinated by the act of seeing" and by the "simultaneity of past and present" (144-45), sought to enhance the illusion of immediacy for his readers by communicating his sublime encounter with as little textual mediation as possible.[19] However, prose proved an imperfect medium for recreating the scene.

Dickens's efforts to convey a more immediate encounter with the volcano was part of a larger Victorian desire to use modern technologies in order to paradoxically erase the material realities of space and time. To that end, London advertisements for dioramic and panoramic representations of Pompeii and Vesuvius claimed to provide more "authentic" views than any traveler could experience in Italy. A desire for a repeatable travel experience existed alongside the desire for experiencing and communicating a more immediate encounter with subterranean fire. Formulaic travel narratives participate in a mid-to-late Victorian perception of Pompeii's landscape and history as raw materials that could be appropriated and caricatured, and this process became heightened as technological innovations, such as the railway and media

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[19] I am not the first to notice Dickens's reliance on the sensations produced by other media technologies in order to enhance the illusory immediacy of his descriptions. For example, Buckland claims that Dickens's account resembles dissolving views that dioramas and other media entertainments offered and states that these shows shaped Dickens's writing strategies in *Pictures from Italy* (*Novel Science* 256).

entertainments, facilitated the regularity of physical and virtual travel, demonstrating increasingly technologized means for annihilating space and time. British travel narratives to Naples participate in a mid-to-late Victorian perception of Pompeii's landscape and history as raw materials that could be appropriated and caricatured, and this process became heightened as technological innovations, such as the railway and media entertainments, facilitated the regularity of physical and virtual travel.

The ease with which mid-century Victorians could travel virtually to Pompeii "as it was" by reading Bulwer-Lytton or by visiting the Crystal Palace Pompeian Court later fuelled late nineteenth-century commercial travel to Pompeii and, even more thrillingly, Vesuvius's crater. On June 6, 1880, the Vesuvio funicular railway opened to the public. A mere seven years later, Thomas Cook and Sons purchased the funicular and promoted the railway as a triumph of British engineering and entrepreneurism, conveniently eliding that the project had been conceptualized by a Hungarian and financed and constructed by Italians (Smith 10). By conquering the steep incline that led to the source of subterranean fire, the funicular was an engineering feat and a testament to railways as an industrial power that could conquer any geographical hurtles, including volcanoes, a feat celebrated with a full-page illustration in the an 1880 issue of the *Illustrated London News*.[20] As I discussed earlier, recurring tropes, characters, and landmarks in travel narratives convey a sense of repeatability so that the reader may imaginatively share in the author's journey

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[20] See "The Railway of Vesuvius." *Illustrated London News* [London] 26 Jun. 1880, p. 628, for a full-page illustration in three parts: a zoomed out view of the Bay of Naples, a view of the railway line ascending the summit, and a diagram with engineering specifications.

before recreating a similar journey. Rendering the ascent endlessly repeatable and

effortless, the funicular conveniently transported groups of twelve passengers at a time –

up to three hundred tourists per day – and became a source of entertainment in its own

right.[21] The funicular was not entirely free from hazards – numerous lava flows

interrupted service – but it transformed the more individualized and harrowing journey of

an ascent made on foot into a more homogenized, commodified experience.

Celebrated in the Italian song "Funiculì, Funiculà," and run with a clock-work-

like regularity, the funicular homogenized the travel experience and transformed

Vesuvius's subterranean fire into a regulated, routinized spectacle. According to *Cook's*

Tourist Handbook for Southern Italy (1884), the trip to the summit, which had previously

consumed a tourist's entire day due to innumerable variables, could now be managed

easily in quantifiable increments and for a consistent, predictable cost:

> Instead of bargaining with guides, and undergoing various extortions, the
> tourist can now take his ticket from Naples to the summit and back at a
> cost of 25 lire by day and 30 lire by night. The ticket provides for a place
> in a carriage from Naples to the foot of the cone, and for the railway, up
> and down.
>   The railway is 985 yards long, the upper station being 1300 feet above
> the lower. The steepest portion of the gradient is 63 feet per hundred; the
> least steep, 43 per hundred. The carriages have seats for twelve persons,
> and the mechanism is arranged in such a manner that, in case of accident
> to the rope, the carriage can be immediately stopped upon the line. The
> upper station is about 300 feet from the crater, and the ascent occupies
> only about seven minutes. (267)

Through Cook's travel agency, twelve people could ascend Vesuvius in seven

minutes without the harrowing experiences described in Charles Dickens's account of his

small band of brave travelers. Not missing an opportunity to capitalize on any aspect of

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[21] I am grateful to Smith for these figures (10).

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Vesuvius, the guidebook celebrates the safety and regularity of the industrialized journey while also invoking the volcano's pre-industrial, sublime, and picturesque qualities: "Of this view, Goethe declared that one look westward repaid all the toil of the ascent. Unless the volcano is actually in eruption, tourists may approach the brink of the crater without risk, except that of frizzling the soles of their shoes" (269). Cook and Sons commercialized an encounter with subterranean fire while also rendering the authenticity of that encounter impossible because the journey had become homogenized, safe, and without toil.

Though the desire to experience subterranean fire had catalyzed industrial inventions like the funicular railway, the mode of travel and the spectacular views from Vesuvius's peak began to replace subterranean fire as the tourist's primary focus. In 1888, a self-proclaimed amateur photographer and "jaded man of business" wrote a panegyric of the funicular railway in an article for the *Pall Mall Gazette,* transforming his individual travel narrative into an advertisement for Cook and Sons and for amateur photography. "The excursion to the summit of Vesuvius is now so easy," he writes, that "you have nothing to do but pay the sum of 28 francs and place yourself in the company's hands" ("Photographing Vesuvius" 3). The photographer's account reminds the reader that any trip up the volcano provides a thrilling dose of actual terror within the perceived safety and comforts of the tourist industry. During the ascent, terror and fear momentarily come back to the foreground as the photographer writes, "[t]hen, if ever, you remember your little mean and shady acts and your many misdeeds, and you register a vow of reform if ever you are permitted to reach good solid earth again" (3). But, these

fears and relatively shallow introspections last a short amount of time, because eleven

minutes later the passengers reach the top station. After that, guides bring them to the

crater's edge. When describing the sights and sounds at the crater, the writer reaches for

industrial metaphors, describing the sounds "of a gigantic mill at work" and the "five red-

hot furnaces glowing far below" the crater's edge (3). The description appeals to sound,

sight, touch, and smell, but it begins with familiar industrial imagery, rendering the

volcano manmade and recognizable. The photographer completes his commodified

experience when his tour guides impressively "catch the lava on sticks as a red-hot paste"

and "then presses a copper coin into the paste while still soft" (3). Spurred to travel by

Vesuvian images and narratives, the middle-class travelers could now gather and

memorialize, with the aid of a camera, their own images of subterranean fire.

The amateur photographer's journey, instead of measuring an individual traveler's

robust and athletic vigor, measured the efficiency and ease of industrialized travel and the

ability of Cook's tourism industry for taming subterranean fire. In fact, the novelty and

reliability of the funicular's ascent became a crucial plot point in an 1898 story published

in the *Strand Magazine* when the protagonist consults with a Cook's agent, buys a

funicular railway ticket, and, aided by the speed of the railway, successfully races to the

summit to prevent a tragic murder.[22] While travelers -- and thrilling stories -- benefitted

from the relative ease and speed of the funicular railway, the amateur photographer

quickly points out the railway has managed a remarkable task: to exist on a slant and to

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[22] This harrowing plot point occurs in "The Brotherhood of the Seven Kings" by L.T.
Meade and Robert Eustace, published in the June 1898 issue of *Strand Magazine*.

overcome "the terrible angle" ("Photographing Vesuvius" 3). However, the "terrible

incline of in some parts 60 degrees" is soon forgotten when the writer lingers on the view

of Naples and the bay below, stating, "and your past life revolves before you like a

panorama" (3). In other words, Cook's tourism industry has tamed subterranean fire

while presenting phenomenal views of the Bay of Naples and the surrounding

countryside.

Ten years later, for one star of stage and screen, the funicular railway threatened

the allure of the monstrous volcano. During Sarah Bernhardt's 1898 interview in the *Pall

Mall Gazette*, "Sarah Bernhardt Ascends Vesuvius," she attributes Italian audiences'

unruliness during her production of *Dame aux Camelias* to their "volcanic nature," and

from that metaphor creates an opportunity to describe her recent ascent. Bernhardt

heightens the drama of her adventure, claiming she wanted to see the "the superb fiery

despot at close quarters" before a funicular railway "render[s] the monster accessible to

all," omitting the fact that the funicular had been operational as early as 1880.[23] She

characterizes the railway, the icon of industry and modernity, as "barbarous,"

highlighting through a paradoxical juxtaposition that civilized modernity's usurpation of

uncivilized antiquity is, in fact, uncivilized because it is ruining the landscape and

making a previously exclusive journey accessible to everyone. Eager to encounter the

monstrous valve of subterranean fire as authentically as possible "on foot," she climbs at

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[23] I am unable to find archival evidence to support Bernhardt's claim that the funicular posed a "new" threat since the funicular was operational as early as 1880. In the interview, Bernhardt's responds to the proposed funicular by saying, "Is Vesuvius to be reduced to proportions of a theatrical representation? I find this scheme only less ridiculous than the lighting of the Catacombs by electricity" ("Sarah Bernhardt Ascends Vesuvius" 6). All quotations in this paragraph are from the same interview.

night to enhance the spectacle. Quick to mention the circumstances of her climb were dangerous "for a lady," Bernhardt casts herself as an intrepid explorer and mountaineer. In addition to the ocular "strange sensation" of seeing Vesuvius at night, Bernhardt emphasizes kinetic and tactile sensations as well, describing ground that grew "warmer and warmer" and the impossible image of her footprints in the "scarce cold flame" as she clambers up the slope and claims she felt like an "ancient Pompeian."

The invocation of flames in her overwrought narration sensationalizes her multi-sensory and unmediated encounter with subterranean fire and demonstrates that she bested the untamed volcano that destroyed Pompeii. She is rewarded for her arduous efforts by "feeling in [her]…innermost being the grandeur of the earth and the littleness of man when face to face with the forces of Nature." Once she reaches the summit, she defies her guides' recommendations and draws even closer to the crater's rim and recounts the melodramatic and physically impossible sensation of feeling "immersed in fire" as an authentic, unmediated encounter with a sublime force that is unavailable to the average tourist who reaches the summit under the highly regulated railway and tourist industries. She provides evidence through material effects, such as her lost curl and singed eyebrow, to show that her encounter is unique to prove that Vesuvius is not yet, in her words, reduced to "theatrical representation." Bernhardt's desire for an unmediated encounter with subterranean fire contradicts the late-nineteenth-century tourism industry, possibly even eliding the material conditions of her ascent.

Bernhardt's interview piqued sufficient interest to be satirized in a poem

published in *Punch* called "A Burning Incident":

> WE cannot blame the Amorous Mount,
>   When SARAH ventured to his lair,
> His fiery heart, of love the fount,
>   Was moved by SARAH'S dainty (h)air.
> With lava lips he longed to press
>   The goddess in his fierce embrace.
> How hard he burned for one caress,
>   One kiss upon that Bernhardt face,
> And so, unwrought by passion's whirl,
>   He scorched her eyebrow, stole her curl.
> Then SARAH was not vexed or cross,
>   But showed her keen dramatic taste,
> "I've suffered really no great loss,"
>   She cried, "these things are soon replaced!"

Referencing the *Pall Mall Gazette* interview in an epigraph, the *Punch* poem rejects

Bernhardt's adventurous narrative, preferring instead to eroticize her encounter with

subterranean fire. Bernhardt's narrative is about wanting to encounter subterranean fire in

an authentic, unmediated way, which is part of a larger phenomenon of desiring and

apparently experiencing unmediated encounters while ignoring the technologies that

make those encounters possible. For Bernhardt, Vesuvius should not be "just" a theatrical

representation, but as we have seen in this chapter, Vesuvius had already been subjected

to a long history of theatrical and media entertainment adaptations.

Flames and Fireworks: Representing Vesuvius in Media Entertainments

The threads of imperialism, industrialism, and subterranean fire that I have been

tracing across various textual and visual narratives converge again in the flame-centered,

multi-sensory, and spectacular pyrotechnical displays at the end of the nineteenth

century. An 1897 *Pall Mall Gazette* article titled "Vesuvius Unlimited: What Hampstead Plans to Do" describes the pyrotechnical artistry and expertise required for Hampstead to "outflare, outflame, and outfire" other bonfires that were to be lit in celebration of Queen Victoria's Diamond Jubilee (7). Constructed from wood and railway iron, Hampstead's conical pyre unites artistry, pagan traditions, and imperial and industrial transportation networks in celebration of Queen Victoria. Not content with the image of a generic volcano, Hampstead Heath seizes Vesuvius as a nationalistic icon, demonstrating Britannia's mastery over ancient geological forces that transcends national boundaries. Instead of erupting due to the unseen, unpredictable, and natural forces of subterranean fire, Hampstead's Vesuvius erupts on command in concert with Queen Victoria's power and a pyrotechnist's expertise. "Vesuvius Unlimited" is one of many instances of England deploying Vesuvius as an symbol of its imperial prowess, but that appropriation seems short-sighted, especially considering that Krakatoa's infamously catastrophic eruption occurred just fourteen years earlier in 1883, killing over 30,000 people, creating tsunamis, and producing one of "the largest sounds ever documented" (Picker 4). Despite the widespread reports of small and large-scale volcanic eruptions throughout the nineteenth century, "Vesuvius Unlimited" and other Vesuvian entertainments, such as James Pain's *The Last Days of Pompeii*, draw upon the association between fire and imperialism in other media entertainments to imagine a Britannia that can construct, ignite, and control even the most indomitable of geological forces.

Vesuvian media entertainments have a long history, including Athanasius Kircher's miniature volcanic entertainments in the late seventeenth century that

mimicked lava flows using a candle and red waxed paper as well as the pyrotechnic

displays of London's pleasure gardens in the eighteenth-century.[24] Alongside the images

of suspended animation that emerged from Pompeian excavations, Vesuvian media

entertainments recreated and controlled the fatal fiery eruption using pyrotechnics.

Fireworks were already associated with the display of industrial power and "the reach of

empire," as Ann C. Colley explains in her history of the Belle Vue Zoo entertainments

(1). Mimi Colligan has developed the association between fireworks and empire even

further by showing how pyrotechnic entrepreneurs like James Pain and Charles Brock

toured Australia, New Zealand, and the world, offering a semblance of virtual travel to

distant audiences through their pyrotechnical wizardry.[25]

Between the 1870s and 1890s, London audiences could experience the destruction

of Pompeii nightly and free of charge. James Pain's *Last Days of Pompeii* spectacularly

reenacted the demise of the ancient city by using accurate architectural sets and a

pyrotechnic Vesuvius. Pyrodramas were fire-plays: massive, outdoor performances that

used pantomime performances and live fireworks to recreate fire-related scenes of

destruction, and Pain's *Last Days of Pompeii* was the most popular. Originally staged on

the grounds of Alexandra Palace in North London for a crowd of 10,000 people, Pain's

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[24] For more on pleasure gardens, see David Mayer's article "The world on fire…" and Warwick Wroth's illustrated 1896 *The London Pleasure Gardens of the Eighteenth Century*. Gillian Darley also connects Vesuvius to Athanasius Kircher, the assumed inventor of the magic lantern. According to Darley, Kircher was "lowered deep into the crater in a basket" and claimed that "the habitation of Hell" altered the entire course of his work (46-47). For more on Vesuvius and media history, see Nicholas Daly's *Demographic Imagination.*

[25] The book version of this project will compare James Pain's *The Last Days of Pompeii* to Charles Brock's famous firework recreations of Vesuvius at the Crystal Palace.

Vesuvius would later erupt all over the world as the show traveled throughout England, Australia, and the United States, dazzling audiences at the edges of the British Empire and beyond. Pain's pyrodrama borrowed its title and structure from Bulwer-Lytton's novel, but the emendation of Pain's surname to the title reflected his entrepreneurial showmanship and ensured that the pyrodrama would be connected to the incendiary history of Pain's Pyrotechnics.[26] By prominently featuring fire, Pain's pyrodrama amplified the illusion of spatio-temporal travel by stimulating the audience's visual, tactile, olfactory, and auditory senses. Jay David Bolter and Richard Grusin explain the veneer of authenticity that audiences may perceive in media entertainments as the "illusion of immediacy" (3), and the illusion occurs when the consumer forgets about the media apparatus and has a seemingly uninterrupted experience with the content. Pain's pyrodrama is one example of how the illusion of encountering an unmediated view of the past is achieved, paradoxically, through increasingly modern technologies.

Pain's pyrotechnic Pompeian fête rekindled the dead city and provided a "virtual Grand Tour." As with Bulwer-Lytton's novel and the Sydenham Pompeian Court, Pain's meticulous attention to detail -- which is most evident in his architectural sets, pyrotechnical expertise, and in the playbills that included historical information about Pompeii – lent a semblance of authenticity to the otherwise necessarily artificial portrayal of Pompeii's final moments. Pain's pyrodrama condensed the original Grand Tour to just one destination, but the pyrodrama compensated by presenting relatively life-sized and

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[26] The history of Pain's company includes a longstanding myth of providing the gunpowder to Guy Fawkes, and Darley reminds us that there is a longstanding and imagined "link between volcanic eruption and gunpowder" (52).

highly sensationalized views of Pompeii to large crowds. Whereas Vesuvius had

provided a captivating and climactic backdrop to previous Pompeian narratives, such as

Bulwer-Lytton's *Pompeii*, Pain's Vesuvius stole the show, echoing the 1830s theatrical

adaptations of Bulwer-Lytton's novel in which, as Daly explains, "the emphasis has

shifted from the philosophical concerns of the novel to spectacle and special effects"

(*Demographic Imagination* 40).

Pain's *Last Days of Pompeii* used fireworks, live fire, pantomime, music, and

other acts to entertain crowds of 10,000 people (see fig. 4.1). The set measured 350 feet

across and 75 feet deep (Mayer "Romans" 42). A body of water provided a much needed

buffer between the audience and the heat of Pain's pyrotechnics, but it also lent a further

layer of verisimilitude to the performance by evoking the Bay of Naples, which was often

depicted in paintings and media entertainments of Vesuvius's 79AD eruption.[27] The sheer

size of the crowd coupled with the distance of the set meant that the "virtual tour" was

mostly limited to exterior views of the buildings. Scholars such as Nick Yablon and

Lauren Rabinovitz contend that the mostly pantomimed performance democratized taste

by translating formerly aristocratic iconography and narratives for an audience of diverse

textual and visual literacies.

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[27] See Daly for a discussion of some of these examples, including Philippe Jacques de
Loutherbourg, who incorporated the bay into his 1781 Eidophusikon spectacle, Joseph
Wright of Derby, Claude Joseph Vernet, J. M. W. Turner, and Edgar Degas, pp. 23-25.
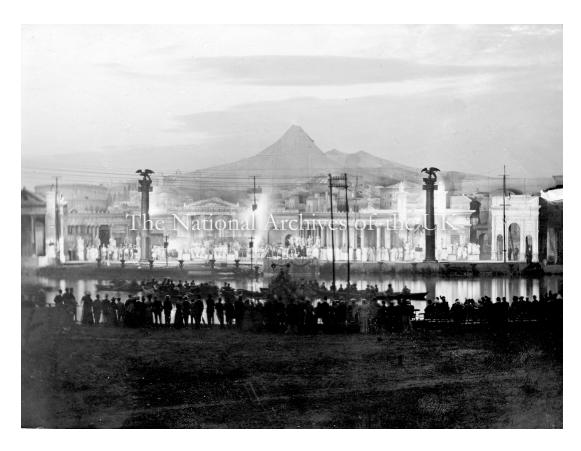
Fig. 4.1, Pain's The Last Days of Pompeii pyrodrama at Alexandra Palace, 1898.
Photograph courtesy of the British National Archives, COPY 1/436 f756.

Pain further bridged gaps between high and low cultures and enhanced the detail

of his audience's visual knowledge through a supplemental guidebook, which included

architectural drawings and historical information. The form of the guidebook furthered

the conceit of going on an actual journey across time and space, and its historical content

participated in the longstanding tradition of elevating supposedly "low" media

entertainments through the guise of edification.[28] The pyrodramatic performance and the

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[28] Promoting education through entertainment informed the appearance of Pompeii and
Vesuvius panoramas in London. According to Kate Nichols, both the Strand and
Leicester Square featured panoramas of Pompeii between 1823 and 1824, and "The

printed guidebook presented a complete vision of Pompeii before, during, and after its

destruction. Grand Tourists may have felt the simultaneity of past and present during

their strolls through the Pompeian ruins, and Crystal Palace visitors may have briefly

inhabited a reanimated Pompeian domestic scene, but the immense heat and dazzling

spectacle of Pain's pyrodrama offered audiences an immersive visual and tactile

experience of visiting Pompeii in its final moments. Pain's audiences experienced the

thrilling illusion of time travel to Pompeii "as it was" and the additional pleasure of

witnessing Vesuvius's flames return the city to ruins and ash, all with the comforting

knowledge of their own safety and of the show's repeatability. Pain's pyrotechnic

expertise epitomizes Alison Byerly's characterization of nineteenth-century virtual travel

as "an imitation that is not simply viewed, but experienced 'as if' it were real" (15). In

related entertainments, like the panorama, the sensation of physical travel disappears, but

Pain's pyrodrama provided an additional layer of "immersiveness," a virtual environment

that "overwhelms the other senses, extending the participant's own sensory perception so

as to minimize the sense of boundary between self and environment" (Byerly 18).

Pain's performances also coincided with a renewed fascination in fire and fire-

works as art. For example, contemporaneous reviews of the pyrodrama similarly

celebrated the democratization of Pompeian imagery and protested against any

accusations of pure sensationalism that would, of course, accompany such a pyrotechnic

spectacle. An 1898 review published in *The Sketch* explains that while these

performances offered a pleasant reminder of Bulwer-Lytton's novel, they transcended the

Strand's 1824 Pompeii was shown again at Leicester Square from 1848-50" (57). Also,
see Alison Byerly's *Are We There Yet?* for a history and analysis of the guidebook genre.

trappings of his "grandiose" and "viciously high flown" prose (151). And, two years

earlier, an article published in *The Strand* celebrated the pyrodrama not just for its

successful and less pretentious adaptation of the novel, but for the redefinition of

fireworks as "pyrotechnic art," worthy of study and admiration in its own right

(FitzGerald 664). The articles in both *The Sketch* and *The Strand* featured stunning

photographs of Pain's pyrodrama and other, dazzling pyrotechnical displays. These

claims for the artistry of fireworks appeared about two decades after critics were

offended by James McNeill Whistler's painting, *Nocturne in Black and Gold: The*

Falling Rocket (1875), which depicted fireworks at the Cremorne Pleasure Gardens

arrested in motion against the evening sky. The critical dismay stemmed from the manner

of representation, which John Ruskin infamously described as "flinging a pot of paint in

the public's face," and from the mid-nineteenth century perceptions of the firework as

frivolous, artless, and purely sensational entertainment for the masses.[29] By the end of the

nineteenth century, however, Pain's fireworks displays were evaluated and celebrated in

aesthetic terms – a masterful display of subterranean fire in the sky that required artistry

and ingenuity.

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[29] See Kate Flint's "Fireworks" for an excellent analysis of Whistler's *Falling Rocket*,
which considers the 1875 painting and the 1878 Ruskin vs. Whistler trial within the
contexts of contemporaneous pyrotechnic shows, representations of fireworks in print
and visual culture, and the hierarchies and exchanges within gallery and exhibition
spaces. Moreover, she analyzes spectators of fireworks and paintings in order to theorize
modes of perception made possible by pyrotechnics and paint.

Fig. 4.2, Pain's Last Days of Pompeii, Alexandra Palace, night, with erupting volcano, 1898. Photograph courtesy of the British National Archives, COPY 1/436 f754.

To be clear, these were no ordinary fireworks: the best description I have found so far comes from David Mayer, Emeritus Professor of Drama at the University of Manchester, who has reviewed the technical manuals in the Pain Archive in England. Mayer states that productions of Pain's *Pompeii* in the 1880s and 90s "used…glass troughs illuminated from behind and filled with colored water [that was] circulated by pumps" ("Romans in Britain" 46), which you can see in the photograph above that was taken during a performance at Alexandra Palace in the 1880s (see fig. 4.2). In addition to illuminating Vesuvius with a large bonfire concealed backstage, Pain's employees dropped aquatic pyrotechnics into these lava streams, which then provided additional visual delights as they flickered, sparked, and combusted. Mayer writes:

> Exploding and flaming fireworks were deployed in depth and fired in volleying sequences so that the conflagration was progressive and cumulative. Burning airborne debris from Vesuvius was achieved with 'tour billions,' miniature winged craft fired in clusters into the air to descend burning in slow irregular glides, and 'fizz-gigs,' which make an ominous continual crackling as they drop. And behind the set, a bonfire of dry scrap wood into which powdered soot was thrown in handfuls added a constant lambent glow and upward surges of sparks. (Mayer "Romans" 46)

Similar to Bulwer-Lytton, Pain wanted to convey a sense of realism, but for Pain the most important detail for conveying a sense of immediacy – the illusion that the audience was virtually travelling back in time - was "the technical perfection of the company's fireworks" (Mayer "Romans" 46).

By prominently featuring fire, with all of its conflicting symbolism, Pain's pyrodrama staged a resurgence of the past through modern, industrial means. Bulwer-Lytton's novel, published forty years earlier, self-consciously narrated its intentions to bridge past and present and by continually drawing comparisons between the ancient Pompeians' daily lives and the mundane activities of nineteenth-century life. The multi-sensory stimulation of Pain's pyrodrama increased the illusion of immediacy, but it also raised important questions about that desire for immediacy. Pain's pyrodramas participated in a nationalistic narrative that presupposed a linear trajectory of time that ran parallel to a similar trajectory of progress. However, by continually restaging Vesuvius's eruption, the performance also reminded audiences that geological forces do not respect national boundaries or imperial powers. Since Victorians often interpreted Pompeii as the defining symbol of Roman decadence, debauchery, and heathenism, many viewed the destruction of Pompeii as divine retribution, yet, despite any feelings of

superiority, Victorians could not avoid drawing parallels between the British Empire the

decline and fall of Pompeii. Pain's pyrodrama may have partially reinforced the

perceived power of the British Empire, but it also exposed its limitations and underscored

the assumptions of mastery and progress underlying imperialism. Pain's Vesuvian

pyrodrama provided a media technology for exporting Victorian appropriations of

Pompeii around the world, but once Pain's show entered the global market, the virtual

and democratized performance became enmeshed in British imperial narratives, and

Vesuvius's nightly pyrotechnics erupted along the fissures of the British Empire.

Conclusion

The 1936 Crystal Palace Fire and the End of the Victorian Era

When fire engulfed the Crystal Palace on November 30th, 1936, melting glass forced firemen back from the perimeter and shattering panes and splintering timber could be heard for miles, yet the threat of pyrotechnic eruptions and tumbling structures did not deter the imperiled thousands who gathered to watch the spectacular conflagration of flames and crystal. Newspapers immediately drew connections between the fire and the Crystal Palace's renowned history of fireworks displays, eulogizing the Palace's poetic end while signaling that this disastrous display was also a media entertainment for the masses. Newspapers also linked the fire to the metropole's history of urban infernos and to the Palace's symbolism as a monument of Victorian era science, engineering, ingenuity, and nationalism. *Life Magazine* reported the event as "the London fire" and quoted *The Nottingham Journal* as "call[ing]…the fire 'the ruin of the Victorian tradition" (qtd. in "London's Biggest Fire" 34). The implications of these escalating synecdotal relationships became clear when Winston Churchill famously pronounced that the Crystal Palace fire was "the end of an era" (qtd. in Piggott 211).[1]

This conclusion draws together the concepts of spectacle, attention, audience, and remediation that I have been tracing throughout these chapters. As with the 1834 Parliament fire, the Crystal Palace fire erupted across temporalities, reminding viewers of nineteenth-century entertainments and disasters while also suggesting a radical break with the past. Concluding a project about nineteenth-century British literature and culture

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[1] I am grateful for a conversation I had with Nicole Lobdell about this fire at the 2016 MLA Convention, which helped shape my then inchoate thoughts about fire and periodization.

with an early twentieth-century fire builds from recent trends in Victorian studies

scholarship that engage with "the long nineteenth century," and this conclusion argues

that the Crystal Palace fire is a Victorian era disaster that was consumed as such.[2]

The Crystal Palace at Sydenham, 1854-1936

The Sydenham Crystal Palace opened in 1854, an immense structure of glass and

iron on top of a large South London hill and that could be seen for miles by eight

surrounding counties. As Kate Nichols and Victoria Turner note in their introduction to

the edited collection *After 1851: The Material and Visual Cultures of the Crystal Palace*

at Sydenham (2017), the structure had an "umbilical connection" to the first Crystal

Palace that housed the 1851 Great Exhibition at Hyde Park, but they argue that the

Sydenham site should be more carefully examined as a distinct cultural production since

it was larger than its predecessor, featured new architectural additions, displayed different

exhibits, used a new floor plan, and remained open to the public for over eighty years (4).

Operating under a mid-Victorian ethos that combined education and entertainment, the

designers intended for visitors of all social classes to proceed through the Crystal Palace

exhibits in a systematic and supposedly more informational fashion; as one of the Crystal

Palace chairmen explained, their intention was "to present an 'illustrated encyclopedia of

this great and varied universe'" (Laing qtd. in in Nichols and Turner 4). Though situated

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[2] To cite just one recent example of scholarship on the long nineteenth century, see
Lauren Goodlad's *The Victorian Geopolitical Aesthetic: Realism, Sovereignty, and
Transnational Experience* (2015).

apart from the London city center, the Crystal Palace remained central to Victorian daily life through material networks such as railways and telegraphs.[3]

For the past two decades, scholars have reevaluated the previous perception of the Crystal Palace as a monolithic and unchanging symbol. The editors of *Victorian Prism: Refractions of the Crystal Palace* (2007) facilitated this direction in scholarship by encouraging readers to follow the suggestive image in their volume's title and to consider the palace's multi-faceted symbolism. *After 1851* furthers that aim by more closely attending to the eight decades that the Crystal Palace reigned at Sydenham and, as Isobel Armstrong notes in her foreword, the collection of essays successfully avoids the condescending attitudes of both Victorians and twentieth-century scholars who praised "the high seriousness" of the Great Exhibition while criticizing "the low comedy of Sydenham," a dichotomy that Nichols and Turner argue is inherited from 1930s cultural "snobbery" towards the Victorian era mass entertainments ("Foreword" xi; Nichols and Turner 9). While both of these edited collections consider the legacies of the Great Exhibition and the Sydenham Crystal Palace exhibitions and ruins, the cultural dimensions of the 1936 fire are relatively understudied. By including the Crystal Palace fire in a project on nineteenth-century British literature and media, I examine concerns about media consumption that emerged in the 1800s and continued in the early decades of the twentieth century, and I suggest how those continuities inform our own media ecologies and practices today.

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[3] Unless otherwise noted, Nichols and Turner's introduction to *After 1851* is my source for historical information about the Crystal Palace at Sydenham.

The 1936 Fire and New Media

A brief history of the Crystal Palace that was published the day after the fire in *The Times* quoted William Makepeace Thackeray's description of the 1851 Great Exhibition as a "blazing arch of lucid glass," an image that would become a dreadful reality for the Sydenham Crystal Palace ("London's Popular Resort" 18).[4] Once again periodicals used dramatic conventions to script a London conflagration as a national disaster, rising to the theatrical occasion through aesthetically dazzling descriptions of flames and harrowing tales of orchestra players narrowly escaping their deaths. The twentieth century periodicals, however, differed from reports of the 1834 Parliament fire in that they could more easily reproduce and circulate images of the fire, and they could do so using the photograph as a documentary and potentially immersive medium.

Using words and photographic images, the 1936 *Times* conveyed the spectacular quality of the event as an unprecedented visual display while also maintaining the tone of national mourning. A photograph of the fire, shot from an unspecified distance, appeared in *The Times* on December 1st, 1936 ("The Crystal Palace " 20). Billowing smoke – irradiated, white, and opaque – dominates the picture while the silhouetted forms of crystalline arches gleam on the right-hand side, perceptible only as black contoured curves outlined against a brilliant light. One of the palace's two water towers stands to the right of the arches while jagged, silhouetted forms in the foreground contrast with the white background and lead to another set of the Palace's curving arches on the left. The accompanying article reported that the fire broke out at 7:30 p.m., canvassed the building

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[4] Thackeray's "May Day Ode" celebrated the opening of the Great Exhibition and was published in *The Times* on 1 May 1851.

within thirty minutes, and consumed two-thirds of the building within three hours,
resulting in "a flaring mass of ruins" (16). "Thousands of people hurried to the scene
from miles around," *The Times* reported, "by car, on foot, and by bicycle," and
""hundreds of motor-cars were parked in all the roads and streets within a radius of half a
mile" (16). The densely packed crowds were so numerous that they initially thwarted the
efforts of firemen who "stood helplessly with hose which they could not connect up"
until police intervened with "pleading and urging" and convinced the crowd to keep the
road clear (16). As with the 1834 Parliament fire that I examined in chapter three, both
environmental and circumstantial conditions impeded firefighting efforts; the direction of
the wind aligned with the position of the building, speeding the flames along as they
swept through the building (16).[5]

The fire's magnitude was made even more visually striking because of its hilltop
location. *The Times* compared the fire to "a vast bonfire," harkening back to Hampstead
Heath's 1897 "Vesuvius" that I discussed in chapter four, and a Royal Dutch air liner
pilot saw the glow from the air ("The Crystal Palace" 16). "[E]ven after 2 a.m. crowds
were still arriving to watch the spectacle," and inhabitants of nearby buildings watched
the "leaping flames" from their windows (16). According to a hotel manager that *The
Times* interviewed, "you [could] see to read a newspaper several hundred yards away," a
measurement of the fire's luminosity that echoes similar evaluations made during the

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[5] In another evocative echo of the 1834 fire, the Crystal Palace fire also used new
firefighting technology that was in itself a spectacle to behold: "The new hose lorry of the
Fire Brigade, which can reel out one and a half miles of hose at a speed of 15 miles an
hour, was used for the first time after being demonstrated only yesterday afternoon"
("The Crystal Palace" 16).

1834 Parliament fire (16).[6] This time, however, firelight was not remarkable for suddenly

illuminating darkness. Instead, the flames were impressive in their ability to overwhelm

the electric lights beaming from streetlights and from nearby hotel windows. The heat,

the hotel manager continued, was "so intense that you cannot comfortably stand on the

hotel veranda. Every now and then there is a mighty roar and crackling noise as the

flames spread" (16). While the towering flames and radiating heat awed the "vast crowd

of spectators" that gathered at the site, the glow also could be seen from Brighton, some

fifty miles away from London's city center (16). Spectators who were close enough to

observe the architectural details of the palace watched as

> [m]asses of glass dropped continually, and section by section the huge
> skeleton of ironwork visibly bent and twisted and fell with heavy crashes
> and in immense showers of sparks; the steady glare spread far beyond the
> Parade, and shone on the faces of thousands of people ranked along the
> railway line below. (16)

Though the sheer quantity of people attests to the visual fascination of the flames, the

atmosphere, as reported by *The Times*, remained relatively calm and solemn, perhaps

even more so than the 1834 Parliament fire, for "everywhere could be heard genuine

expressions of regret for the end of 'the poor old Palace'" (16).

The Nottingham Journal, when compared to *The Times*, appears to cater to a new

media consumer who relies more on snippets of information rather than on a cohesive

narrative. For instance, the startling Crystal Palace fire shared the journal's front page

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[6] One of the first displays visitors would see upon entering the Sydenham Crystal Palace
was "a screen designed by Matthew Digby Wyatt containing plaster models for statues of
the Kings and Queens of England made by John Thomas in the 1840s for the new Houses
of Parliament," yet another uncanny connection to the 1834 Parliament fire and the
construction of the new parliament buildings (Nichols and Turner 7).

with varied and often uncontextualized information about unrelated matters, such as hunting injuries, reports of fifty picketers at the German embassy, a millionaire's retraction of a promised financial reward for helping him sleep, and a photograph of the film star Miss ZaSu Pitts signing autographs at Waterloo Station. The fire breaks through the cluttered "news" on the front page, occupying the center with large fonts and colorful descriptions. The journal's coverage of the fire emphasizes the rapidity with which the flames consumed the building, the presence of police and firemen to control the fire and the crowd, and the "scenes" that were witnessed as the fire continued to rage. The front-page coverage also included a harrowing description of the orchestra who was practicing at the time. They were initially informed that a fire had broken out but were told that there was no danger. It was not until one orchestra member returned from getting something in her car that they became aware that the roof was on fire above them, and, according to their reports, made it out of the building just as the ceiling crashed.

There is evidence of conflagration aesthetics in the 1936 periodical descriptions, particularly the tower of fire that obfuscated the structure so that only pillars of flames and smoke were visible. In a somewhat startling anticipation of our era's reporting tendencies, a small "aeroplane" circled low over the buildings to take photographs of the fire, but narrowly avoided becoming a tragic episode in the fire's story as it got caught in the updrafts of hot air and smoke ("The Crystal Palace" 16). The camera, wielded from a plane careening overhead to capture aerial views, represented a perspectival fascination that can be traced back to hot air balloon ascents, while the film cameras that remained on the ground, capturing raw newsreel footage that would be cut and spliced later to

maximize narrative concision and impact, gestures towards the enduring fascination with the realistic, moving image. Re-experiencing the fire was no longer achieved through dioramic theatrical entertainments or immersive panoramas. Instead, a British Pathé news reel, "Crystal Palace Fire Aka Great Fire Destroys…" documented the event, drawing attention to the dazzling details of the fire: tongues of flame shivering along wrought-iron ridges, supports contorting on the ground, and billowing smoke, suffused with illumination from unseen flames, buffeting behind glass panels. Even now viewers can replay the fire on YouTube or the British Pathé website.[7] The fire is a remarkable demonstration of fire as a media technology, and it offers a new means of periodizing the long nineteenth century. From the perspective of the twenty-first century, the fire is also remarkable because it continues the Victorian era fascination with conflagrations, but that fascination would change, and that had probably begun to shift already, with the haunting images from the Reichstag fire three years earlier and, later, with images of London monuments surrounded in smoke after bombings during the Blitz in 1940 and 1941.

Embers, or Final Thoughts

In arguing that fire is a media technology, I have drawn together materials that are not often considered side by side. Instead of narrating a history of media technologies in terms of mechanical devices, I have considered how firelight operated as a pre-mechanical media technology that later fueled mechanical devices made possible through industrialization and the spoils of imperialism. Fire has also let me examine intentional

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[7] "Great Fire destroys Crystal Palace," *British Pathé*, https://youtu.be/oF3vVv9fC34.

and accidental media spectacles and to think more broadly about the issues of attention, absorption, and distraction. Here at the end I find myself reminiscing about Lizzie Hexam and Leigh Hunt's fire-gazing figures, perhaps because the fire-gazer was the first figure to populate this dissertation. The chapters in this dissertation have provided ample fuel, and now the embers are burning low, but I will continue to stir them artfully, hoping to spy one of Lizzie Hexam's fortune-telling pictures, and looking about, as did Hunt, "for helps to reflection."

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