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Never Mere Observation: Performance, Technology, and the Act of Looking

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Abstract

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Herbert Blau, in defining the act of looking as “never mere observation,” describes how the action of the visual faculty is not simply about seeing, but the engagement in an active, circulatory exchange between culture and viewer. *Never Mere Observation* posits a dialectical relationship between spectatorship, performance, and emerging technologies. In this study, my aim is to track a pattern of ideas and use to assert the possible connections between the evolution of technology and the evolution of narrative structure. The biomechanical function of the act of looking and its analogous relationship to the mechanical devices of concurrent periods reveals how texts and performances function as indices of the cultural saturation of technological advancement. The technologies within this study are devices that obliquely highlight the act of looking, emphasizing the process of the acculturation of technology rather than the results of it.

Chapter One draws on seventeenth-century scientific theory to demonstrate how the practice of microscopy was manifest in a shift in theatrical convention through a comparative analysis of Sir George Etherege's *The Man of Mode, or Sir Fopling Flutter* to Sir Thomas Shadwell's *The Virtuoso*. Chapter Two focuses on the technology of the piston and cylinder locomotive engine and spectacular melodrama's relation to filmic viewing to explore the slow transformation of looking in the late nineteenth-century. The multiple components of this analysis are connected through a publicity stunt/meeting between the actress Sarah Bernhardt and preeminent Industrial Revolution inventor Thomas Edison as a link between performance and the steam engine driven railways. Chapter Three compares two autobiographical solo performance pieces—the text of Spalding Gray's 1985 monologue *Swimming to Cambodia* and the 2005 performance of punk rock raconteur Henry Rollins—to show how the postmodern-influenced Information Age is registered theatrically. The dramaturgical construction of both performances invites consideration of the intersection between participant and viewer on the Internet. Across these periods of social and technological revolution, performances act as an index of the cultural saturation of a given technology, registered dramaturgically through the act of looking.

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DEDICATION

For Bonnie, Nina, and Patricia

Introduction: Never Mere Observation: Performance, Technology, History

The act of looking is, then, never mere observation.

Herbert Blau¹

Writing in *The Audience* about the reciprocating quality of performative looking, Herbert Blau takes what appears to be a simple physiological action and expands it into a discourse on the role of the theatrical audience. Looking is defined as an “act” followed by “then” with its implication that this statement is engaged in an ongoing argument, albeit an intellectual and civilized one. For Blau, looking is “never mere” with no way to conceptualize a look as anything other than a determined act. The adjectival “mere” reduces the clinical omnipotence of “observation,” reinforcing his thesis. To look is not simply to see. It is not a response of the body only, without context, history or affect. To look is to engage. It is active participation in a circulatory exchange. Blau’s assertion materializes the distinction at the heart of this study: the act of looking.

This study posits a dialectical relationship between spectatorship, performance, and emerging technologies. Throughout, my aim is to track a pattern of ideas and use in order to illustrate possible connections between the evolution of technology and the evolution of narrative structure. The biomechanical function of the act of looking and its analogous relationship to the mechanical devices of concurrent periods reveals how texts and performances function as indices of the cultural saturation of technological advancement. Performance, broadly construed, is a

¹Blau, Herbert. *The Audience*. Baltimore and London: Johns Hopkins University Press, 1990. Print. Parallax: Re-Visions of Culture and Society. 74.

means to see this relationship at work because it inherently involves the act of looking, a term that I define, like Blau, as never mere observation. To look is not a simple physiological process but a complex chain of events that culminates in interpretation. And yet, the realm of interpretation is unstable. Historically the West has emphasized the role of cognition, favoring the interpretive function of vision. Cognition, the realm of interpretation and meaning, is fluid. But the biomechanical function and its analogous relationship to the mechanical devices of the concurrent period is my interest. By focusing on the act of looking built into a performance, the performance, then, acts as an index of the cultural saturation of a given technology. Thus, I examine a selection of performers, performances, and histories that provide intersections between technology and the stage. To do so, I consider seventeenth-century comedies of manners and microscopy, late nineteenth-century spectacular melodramas and steam engines, and millennial autobiographical solo performance alongside the digital computer. I consider each of these pairings of performance and technology during the periods where the culture is acclimating to these new technologies—the Scientific, Industrial, and Digital Revolutions, respectively.

My focus on the act of looking as a means to illuminate broader cultural shifts is sharpened by my focus on technological advancements within periods of social revolution underlined by technologic and scientific achievement. The term revolution is precise in its etymology and expansive in application. Revolution has come to be understood as a foundational change in political and economic organizing structures within a short period of time. In political philosopher Alexis de Tocqueville's description of his three types of revolution, the third form is a slow revolution made of "sweeping transformations of the entire society that take generations

to bring about,” or, a social revolution.² Social revolutions are indicated by a massive change in society not directly linked to political or economic change, although that may be a significant component. This type of revolution is recognized as a turning point where almost every aspect of life is influenced. Some of the most dominant social revolutions are based in technologic change. The Scientific Revolution expanded the range of the visible—both the stars and the microbe became accessible—while shifting the earth from the center of the universe. The Industrial Revolution’s technologies of manufacture fundamentally changed how human beings interacted with the land, machinery and industry. The Digital Revolution expanded both the rate and range of view through communication technologies and, as result, shifted our interactions with each other. These periods are social revolutions driven by, defined by, specific technologies. The relationship between concrete technological development and the broader culture comprising a social revolution evokes historian David Landes’ observation that “change beget change.”³ While Landes refers directly to the rapid technological advancements across many fields within the Industrial Revolution, the sentiment that within “diversity of technological improvement” there was an overall “unity of movement” calls to mind the work of physicist and historian of science Thomas S. Kuhn. In his 1962 book, *The Structure of Scientific Revolutions*, he describes the (now infamous) concept of the paradigm as a means to delineate movements in scientific knowledge. For Kuhn, the paradigm is an event that is both “sufficiently unprecedented” and “open-ended” enough to “attract an enduring group of adherents away from competing modes of

² Boesche, Roger. *Tocqueville’s Road Map: Methodology, Liberalism, Revolution and Despotism*. Lexington Books: 2006. Print. 86.

³ Landes, David S. *The Unbound Prometheus: Technological Change and Industrial Development in Western Europe from 1750 to the Present*. Cambridge University Press, 2003. Print. 2.

scientific activity.”⁴ Philosopher Ian Hacking, writing on the impact of Kuhn’s work, identifies that the introduction of the paradigm is a means to describe the movement of socio-culturally based scientific revolutions. Rather than a catastrophic and total upheaval, “revolutions progress *away from* previous conceptions of the world that have run into cataclysmic difficulties. This is not progress towards a pre-established goal. It is progress away from what once worked well, but no longer handles its own new problems.”⁵ Kuhn’s work, in particular, provides a way to see technological advancement as a continuous shifting of thought rather than a series of great arrivals.

Focusing this study on historical periods identified by social revolutions in the Kuhnian sense allows for the examination of how revolution “changes the domain, changes even [...] the very language in which we speak about some aspects of nature.”⁶ To that end, I employ three terms that bear clear definition: technology, performance, and the act of looking. I have begun to describe the act of looking, the physical action that reveals how specific material objects affect the culture through performance as well as a bio-mechanical action central to my overall thesis.

The Act of Looking

Everywhere, we are looking. Things *look good* or are *looking bad* or we must *look out!* Someone will *look into it* and I will *look after, on, to* and *over*, all in the course of a day. These phrases emphasize the mechanical process of sight, drawing attention to the physical act of engaging the visual faculty. Of the five senses—vision, hearing, smell, touch, taste—the visual

⁴ Kuhn, Thomas S. *The Structure of Scientific Revolutions: 50th Anniversary Edition*. University of Chicago Press, 2012. Print. 10-11.

⁵ Hacking, Ian. “Introductory Essay.” *The Structure of Scientific Revolutions: 50th Anniversary Edition*. University of Chicago Press, 2012. Print. xxxiv.

⁶ *Ibid.*

sense is treated as primary by humans. Other animals may have a biologically more attuned sense of smell or hearing that we lack, with similar anatomy of eye placement, but these species usually lack the depth and acuity of human eyesight, just as we lack the discerning ability of their hearing or sense of smell. The visually impaired may rely on aural or tangible data to develop a way of *looking* at the material world, as we colloquially describe it. They are *seeing* the world, not hearing the world or feeling the world, or even smelling and tasting it. Those sensory systems are ascribed a lower order status linguistically, but are allowed to mechanically surrogate for sight, reinforcing the dominance of vision. While this idiomatic usage demonstrates how the visual is linguistically reinforced as the primary sense, aphorisms that employ the words *see* or *sight*—like *seeing is believing*—describe the act of perception rather than the mechanical action of the look. To turn one's gaze upon something is a physical action that is specific and directed. Seeing is a physiological process that occurs within the brain, below the level of conscious engagement. The aphorism *beauty is in the eye of the beholder* comes closest to describing the combined cognitive, psychological, and bio-mechanical truth of the visual system. The eye registers an image and the brain transforms that image into information. Visual perception, where image becomes information, is associative and, I argue, regulated by the mechanisms for looking that are culturally constructed. The collections of idioms and aphorisms above reinforce that use of the visual system is a means verify something as real, material, and present. We materialize the world through the look, reinforcing that veracity with culturally constructed language.

The human visual system is broadly divided by the distinction between *to look* and *to see*. As a part of the central nervous system, the visual system is composed of both mechanical and neural components. The human eye is the mechanical organ that provides access to the

interpretive, neural process that is sight. The anatomical act of looking refers to the construction of the human eye as well as the physics of light and reflection processed by the eye and sent via electrical pulse through the optic nerve into the brain. If the eye is a camera, the retina is the film that transmits information via the optic nerve to the occipital cortex at the back of the brain. It is there that the brain processes the metaphorical film of the retinal image. The anatomy and placement of human eyes provides generally mediocre vision, with an emphasis on contrast and depth perception. Sensitivity to contrast, or the degree of difference between light and dark is enhanced by the distinct forward placement of our eyes, resulting in binocular vision and nearly perfect depth perception. The anatomical and physiological construction of the visual system points to the importance of a human's ability to orient themselves and other objects in space. We do not possess the same degree of visual acuity—the ability to distinguish in fine detail at a set distance—as, say, a hawk. But the acuity we do possess, combined with binocular vision reinforces the dominance of vision in our sensory system as it is the means to monitor movement through space and our relationship to the surrounding environment.⁷ Anatomized, the eye is a lens and focusing agent, a mechanical tool for looking, but we see with our brains.⁸

The act of seeing engages the neural aspect of the visual system. While the anatomy and physiology of the brain demonstrate which neurons allow for recognition of a horizontal versus a diagonal line or demonstrate a propensity toward pattern recognition, the interpretation of that

⁷ The human visual system anatomy has a significant effect on balance, allowing *Homo sapiens* to comfortably walk upright.

⁸ The above description is based on what a medical professional would define as normal anatomy and physiology. Neurological phenomenon like synesthesia, where stimulation of one sensory or cognitive pathway results in involuntary responses in a secondary pathway, can result in a profoundly different experience of the visual system. Grapheme-color synesthesia, for example, is where letters and/or numbers are perceived as having individual colors associated with each one, or chromesthesia, where sound is associated with color. These variations occur, however, in the neural visual system, rather than the mechanical.

sensory information—perception—moves the discourse of vision toward the realms of psychology and philosophy. Students of the visual system, whether psychologist, neuroscientist, or philosopher, to some degree, are asking *what do you see?* Nicholas J. Wade and Michael Swanston offer that perception in the visual system is “one means of ensuring survival” because “[i]f our actions are not guided by accurate information about the world, then we make errors and put ourselves and others at risk.”⁹ The determination of an abstract “accuracy” divides the mechanical from the neural.

Wade and Swanston’s generalist study offers a bottom-up view of visual perception theory, where smaller pieces of discrete information form a whole. This position theorizes that the world provides enough information for our visual systems to directly perceive, without the need of higher cognitive processes, and that the primary purpose of the visual system is recognition.¹⁰ Bottom-up processing rather neatly aligns to the anatomical and physiological processes of the visual system. The top-down position argues that prior knowledge and expectations are used in visual perception, offering that the purpose of the visual system is as a component of higher order cognition—the process of acquiring knowledge and understanding. Neither position fully describes the act of visual perception, with most contemporary researchers observing that perception in the visual system requires both top-down and bottom-up processing. Current research in visual perception investigates the relationship between visual processing and cognition. Philosopher Michaela A. Tacca argues that “perception and cognition are tightly related” as “[p]erceptual information guides our decisions and actions” while shaping our beliefs,

⁹ Wade, Nicholas J., and Michael Swanston. *Visual Perception: An Introduction*. Psychology Press, 2013. Print. 13-4.

¹⁰ James J. Gibson’s (1904-1980) theory of direct perception.

yet “our knowledge influences the way we perceive the world.”¹¹ This dialectical sub-relationship within the visual system appears to bridge the gap between conscious thought and direct experience. The question of how or to what extent perception is physiological or cognitive is outside of the scope of this study. While I emphasize the mechanical, bottom-up components of the visual system in my analysis, these would lack contextual substance and rigor without the top-down, neural components. For the purposes of this study perception through the visual system is an act of interpretation, guided by previous experience and information about the world that takes place within the brain. Vision is a mechanical action in conjunction with a neurological action.

Thus, the distinction between *to see* and *to look* forms a useful frame. To look is “to direct one’s sight.”¹² It is the action or physical movement of the eye and face in order for light to enter the eye and the photo-receptors there to respond. Looking is mechanical. Perception is, as discussed above, a far more subtle component. It is “to take in or apprehend with the mind or senses” or “to detect,” and even “to take into possession, to receive.”¹³ It is a physical action whose shaded definitions make it a linguistic model of the complexity of viewing. We observe an object, and to see that object, a physiological chain of events occurs that ends in our perception of the object. The visual system allows us to take the material world into our bodies, changing reflected light into nerve stimuli that become ideas we can literally “grasp (to comprehend).”¹⁴

¹¹ Tacca, Michela C. “Commonalities between Perception and Cognition.” *Frontiers in Psychology* 2 (2011): n. pag. PubMed Central. Web.

¹²“look, v.” *OED Online*. Oxford University Press, September 2016. Web.

¹³ *Ibid.*

¹⁴ *Ibid.*

Technologies that affect the mechanical visual system have the power to shape our brains through the act of looking, alongside the act of seeing. These discrete technologies are cultural products, constructed by and re-constructing our relation with the material world, often dominating the cultural vision. A telescope may extend our physical viewing reach and acuity but its affect lies in the capacity of the mechanical and the perceived to shape one another. Not just a cosmological notion—although certainly a factor—but a shift in how we understand both the act of looking and the material we observe. The technologies that direct and shape the act of looking become tools of replicating, challenging or destabilizing power relations and “never mere observation” of them.¹⁵

Technology & Performance, Unintended Relations

This study focuses on technological advancements as the concrete materialization of ideas, the objects of invention resonating within their cultures of development. I consider performance as a technology, calibrated to register the act of looking. In this way, theater is an instrument, a means to determine how the action of looking was shaped by and shaped the culture surrounding it.

Science and technology are terms that live together in contemporary speech, presumed interchangeable. Current educational and political rhetoric places an emphasis on S.T.E.M education—an acronym for science, technology, engineering, and math. With a name implying growth and centrality, one would be forgiven for presuming that the individual words were somehow ranked in order of importance, with science as the ideological and practical base from which the rest of the areas grow. Instead, this educational buzzword is best seen as analogical, and the terms as enmeshed rather than prioritized. *Science* describes the investigation of the

¹⁵ Blau, 74.

physical and natural world. It is more broadly the art of systematic investigation in pursuit of intellectual knowledge. Actual technologies drive and/or arise from those investigations—material objects and practices created with engineering and mathematics, among other skills.¹⁶ Reductively: science is the idea, technology is the application.

The adjective *application* is critical, as it separates technology from science. Technology relates to machines and mechanical processes; fundamentally practical as opposed to theoretical. This distinction is shown in the jargon of the theater, where an onstage prop is meant to be used—one that is not a decoration or mere imitation of the real—is referred to as “a practical.” The autological quality of this use of *practical* implies that the object will be employed in the practice of doing the work it was designed to do; with action embedded into that employment. This sense of the practical as interconnected with action lies at the heart of the modern understanding of *technology*, “the branch of knowledge dealing with the mechanical arts and applied sciences.”¹⁷ This etymological derivation, the one with which we are most familiar, appears in the early seventeenth-century and describes “a discourse or treatise on an art or arts.”¹⁸ The word is formed from the roots of *techno-* and *-logy*. The ancient Greek *tékhné* (skill) is the basis for the prefix *techno-*. The suffix *-logy* is derived from the Latin *-logia*, in turn from the Ancient Greek *logía*—an account, explanation or narrative. The suffix can describe both a subject of study (biology) and a way of speaking, a narrative (eulogy). In this way, the word *technology* encompasses both an object of study and the discourse around it.¹⁹ Yet, as action is

¹⁶ It seems appropriate to quote physicist Albert Einstein who observed that “[t]he greatest scientists are always artists as well.” The skills and behaviors the scientist or engineer employs includes those we would recognize in the world of art.

¹⁷ “technology, n.” *OED Online*. Oxford University Press, September 2016. Web. 24 October 2016.

¹⁸ *Ibid.*

embedded within technology, so too is performance. As narrative *logia* is a story, something told by one and received by another.

Art historian Rebecca Solnit offers an expansive definition of technology in her work on pioneering nineteenth-century photographer Eadweard Muybridge, *River of Shadows: Eadweard Muybridge and the Technological Wild West*. Balancing the biography of Muybridge against the history of railway expansion and natural history exploration in the American West, Solnit adds nuance to the applied/practical binary of technology. She writes that “[I]terally, a technology is a systematic practice or knowledge of an art, and though we almost always apply the term to the scientific and mechanical, there is no reason not to apply it to other human-made techniques for producing desired results [...] A technology is a practice, a technique, or a device for altering the world or the experience of the world.”²⁰ Our tendency to associate technology with science reduces the expansive potential of the term. The critical component of technology is as a means to produce “desired results” that changes how the user interacts with the material world. The openness of this definition invites a reading of performance as a technology.

For performance theorist Peggy Phelan, the concept of performance as a discrete technology is obvious. “Performance is a technology,” she explains, responding to a suggestion that she somehow against technology’s role in performance.²¹ Her clarification emphasizes the materiality of performance, linking technology and performance together by observing that “[m]edieval theatre was a technology. It was not the new technology, not say, electronic technology, but it was technology: a plank and two boards, the definition of theatre. That’s a

²⁰ Solnit, 114.

²¹ Smith, Marquard. *Visual Culture Studies: Interviews with Key Thinkers*. SAGE, 2008. Print. 135.

technology!”²² Phelan’s definition emphasizes the mechanistic elements of performance, the material components that allow for the creation of a performance. The technology of theater converges with the act of performance, the two concepts dialectically shaping one another. Reading Phelan’s assertion etymologically demonstrates the sophistication of the analogy. A technology, as defined above, emphasizes practical application. Phelan’s emphasis on the material reality of the simplest performance structures evokes the practical, tool-making quality associated with technology. *Ars*, the Latin root of the modern use of *art* was more closely associated with the material, technological aspects of generation. When art moved away from its technological roots, it linguistically separated skill and practicality from originality and imagination. Phelan’s argument that performance—as an art form—is a technology reconnects the etymological divide.

Phelan’s dialectical positioning of performance and technology underpins my choice of case studies, outlined below. Theorists Marvin Carlson and Joseph Roach offer working definitions of performance that help define my scope. Carlson argues that while “some” performance is “centrally concerned with skills” what is “more central” is “the sense of an action carried out *for* someone, an action involved in the peculiar doubling that comes with the consciousness and with the elusive other that performance is not but which it constantly struggles in vain to embody.”²³ Carlson’s definition—and its reference to theorist Richard Schechner’s definition of performance as “restored behavior”—brings the act of looking into conversation with specification that to be a performance, the action must be carried out for someone to

²² Ibid.

²³ Carlson, Marvin. *Performance: A Critical Introduction*. Second. Routledge, 2013. Print. 5.

witness.²⁴ Joseph Roach deepens Schechner's reading, offering that "[p]erformance, in other words, stands in for an elusive entity that is not but that it must vainly aspire both to embody and replace."²⁵ It is a particularly useful definition of performance when examining text and production to determine the dramaturgical construction of something as ephemeral and undocumented as the act of looking. Solnit's claim that technology is our attempt to alter our experience of the world through any set of techniques, not just one specific one, read in conjunction with Phelan, Carlson, and Roach form a pattern of association between the concepts of performance and technology.

The performances that comprise my case studies encompass theater and film—forms defined as *performing* arts—but I expand the notion of performance to include events generated by public figures, for the public at large. While Richard Schechner's description of performance as "actions, interactions, and relationships" guides my analysis, theorist Gay McCauley's "rule of thumb" definition of performance is the practical foundation of the work.²⁶ She writes

for an activity to be regarded as performance, it must involve the live presence of the performers and those witnessing it, that there must be some intentionality on the part of the performer or witness or both, and that these conditions in turn necessitate analysis of the place and temporality which enable both parties to be

²⁴ Witnessing is not inherently or solely visual. Being physically present within a shared space can be a form of bearing witness. In my reading, it's not just the act of being physically present, but the aspect of performance that directs our bio-mechanical experience.

²⁵ Roach, Joseph. *Cities of the Dead: Circum-Atlantic Performance*. Columbia University Press, 1996. Print. 3.

²⁶ Schechner, Richard. *Performance Studies: An Introduction*. Routledge, 2013. Print. 30-8.

present to each other, as well as what can be described as the performance contract between them, whether explicit or implicit.²⁷

A performance within this project possesses and is viewed for what Stephen Greenblatt describes as Auerbach-ian “textuality—in its specificity, its local knowledge, and its buried network of assumptions.”²⁸ Applying a technological lens aids us in uncovering the “buried network of assumptions” within both the performative and scientific/technological cultures of a given period.

If performance is a technology, it is an instrument. An instrument is defined as “that which is used by an agent in or for the performance of an action; a thing with or through which something is done or effected; anything that serves or contributes to the accomplishment of a purpose or end; a means.”²⁹ An instrument can be a person, and in the secondary variation, it is a “mechanical contrivance,” but it is a means, a tool to facilitate change. Performance, as an instrument, is a similar means—an exchange based on moving through time and space from one state of being into another. Because, as Carlson argues “[p]erformance is always performance *for* someone.”³⁰ The intentionality of witnessing built into performance, even when the “audience is the self” means that the technology of performance is an instrument. The dialectical shaping of technology and performance becomes a merger of two instruments into one piece of machinery.

²⁷ McAuley, Gay. “Interdisciplinary Field or Emerging Discipline?: Performance Studies at the University of Sydney.” *Contesting Performance*. Ed. Jon McKenzie, Heike Roms, and C. J. W.-L. Wee. Palgrave Macmillan UK, 2010. 37–50. link.springer.com. Web. 45.

²⁸ Gallagher, Catherine, and Stephen Greenblatt. *Practicing New Historicism*. University of Chicago Press, 2001. Print. 41.

²⁹ “instrument, n.” *OED Online*. Oxford University Press, September 2016. Web. 15 March 2017.

³⁰ Carlson, *Performance*.

Susan Bennett, writing in *Theater Journal*'s special issue "Technology and Performance," reminds us that "Technology has always been a part of theater."³¹ Bennett employs the more colloquial associations of technology, implying the various mechanical devices put to use in making theater, rather than the construction of theater as technology. Theater historian Andrew Sofer further discusses the relationship of specifically theatrical technology on dramaturgy, writing that "[e]very significant dramaturgy summons a technology adequate to it [...] But the traffic between theater and technology moves in both directions."³² Historians have considered technologies within performance, whether stage machinery or the machinations onstage. To consider performance, in its entirety, as a technology implies that the totality of performance is a tool employed to achieve mastery or harness the utility of some part of the environment. Technology is engineered—science made practical and material. Technology often moves us forward, allows us to know more. With that increase of knowledge, we are able to do more, creating more technological advancements.

While performance forms can be mechanistic in their multiple component parts, the analogy encourages us to recall that a machine is performative. Any piece of mechanical technology, for all of its supposed predictability, is prone to the spontaneous, the glitch. While a piece of machinery performs, it is subject to the same sense of liveness and presence that any piece of performance may be. It is a matter of scale that differs. A piece of technology may perform for many thousands of iterations before experiencing a glitch. A piece of performance will almost never go off perfectly. But as most engineers will tell you, the more complex the

³¹Bennett, Susan. "Comment." *Theatre Journal* 51.4 (1999): iv–v. Print. iv.

³²Sofer, Andrew. *Dark Matter: Invisibility in Drama, Theater, and Performance*. Ann Arbor: University of Michigan Press, 2013. Print. 105.

system, the more glitch-y they are prone to be. Performance—in particular, theater—is one of the most complex pieces of technology, formed of other intersecting sub-assemblies designed to produce a reliable emotional response in mutable, unpredictable subjects.

Within the instrument of performance, the three major components are the audience, the production and the performance. When the three come together, the instrument comes to life in an evocation of Schechner's claim that performance is "actions, interactions, and relationships."³³ Yet I am concerned about the potentially reductivist consequences of analogizing theater as a machine. Seventeenth-century iatromechanical views of human anatomy seemed viable, but ultimately couldn't account for the multitude of variations on the form. It reinforces an arbitrary binary relationship of functional and non-functional, oversimplifying highly complex systems. Instead, I propose that we reconsider technology as far more mutable and complex, more like live performance, than whatever it is we have conceptualized a machine to be. The glitch serves as a marker of the similarities and differences in the reciprocal shaping between performance and technology. The performance::technology analogy might seem clear and clean but it is a kind of privilege to assume that either form can be reduced to a set of clear objects in relation. No engineer would presume to really know the totality of effects that their technology may be put to, citing the common refrain, "I never thought that it might be employed in such a way."

The audience—as perhaps the engine of the technology of performance—would seem to be the most variable element. But they may be the most stable as the relatively uniform raw material of a culture, brought together by the presumption of seeing staged performance. The production encompasses all of the technical means of mounting a performance: the design and

³³ Schechner, *Ibid.*

construction of scenery, lighting, costumes, the directorial and dramaturgical preparation, the choreography, musical composition and rehearsal, and the rehearsal of performers. It is the largest element, with the most moving parts. The bulk of the labor and material comes prior to any individual performance, but every moment of every performance bears the imprimatur of that labor. The final component, performance, joins audience and production. The relative stability of these components is challenged when combined into the larger instrument of performance. It is more like the moment when an engineer flips the power switch for the first time, completing a circuit and bringing all elements into play. Sometimes, the machine works without a hitch, sometimes it shudders to life and sometimes it fails in the most spectacular way.

Survey of Literature

Speculative fiction writer Neal Stephenson observes that “[n]o linear indexing system is adequate to express the multi-dimensionality of knowledge.”³⁴ Rather than a chronology of literature in any one area, the literature supporting this research is an amalgamation of individual pieces, overlapping or echoing one another, to theorize the relationship between technology and performance through the act of looking. Writing in her introduction to *Parallel Tracks: The Railroad and Silent Cinema*, scholar Lynne Kirby offers that her “aim is an illumination of the relations between” disparate subjects “through several prisms, not a comprehensive theory that will account for all aspects of the phenomenon in all historical contexts” but one that places “theoretical speculation within a cultural network of references.”³⁵ Echoing both Kirby and

³⁴ Stephenson, Neal. *Quicksilver*. The Baroque Cycle No. 1 edition. New York, NY: HarperTorch, 2006. Print. 36.

³⁵ Kirby, Lynne. *Parallel Tracks: The Railroad and Silent Cinema*. Duke University Press, 1997. Print. 11.

Stephenson, the connective fiber between the materials within this project is my placement of them in relation to one another, constructing a multi-dimensional system.

The literature for this trans-historical study covers three periods defined by technologically driven social revolutions—the Scientific Revolution of Restoration England, the Industrial Revolution in late nineteenth-century America, and the Digital Revolution/Information Age of late twentieth and early twenty-first-century in the West. I construct specialized cultural and performance histories of these periods from a variety of evidence, framing them with literary and cultural theory to show how the act of looking is shaped by technology and registered dramaturgically. Within each case study, the literature draws eclectically from three subject areas: materials relating to performance—as defined above—history and theory, including dramatic literature and productions; histories and philosophies of technology and technological change; and cultural theory to unite performance and technology, through the act of looking. Research on the history and theory of vision and visual perception provide insight into historical material, but are peripheral to the overall scope of this work.

As this study theorizes a new relationship between the technology, dramaturgy and the act of looking, the subject areas that comprise the scope of this work are individually vast. This literature review attempts to group the materials in a way that echoes the interrelatedness I posit. The objects of study here are dramatic literature and performances, but the broad definition of performance that I employ means that a publicity stunt and a text become performances within the same discourse. These objects/events are defined in relation to the historical performances and documents used. There is a significant elision between theorists of technology and historians/theorists who explore the effects of technological change. Within this area lie many popular histories, as well as histories within the subject area of theater and performance. This

further overlaps with cultural theorists who employ the act of looking and discourses of the visual to merge technology and cultural products like theater. Performance theorists use events like theater as their ground for analysis, but their dense readings of performance—broadly construed—as cultural product reveals a shift in cultural knowledge and understanding. Whether any of these theorists or historians is speaking specifically—a biography of Sarah Bernhardt, a history of microscopy—or more generally—the history of the Industrial Revolution—they all circle around the broader relationship of technology and culture.

Within the field of the history and philosophy of technology, certain foundational works have a direct impact on this project. As a model of methodology unified with content, David Landes' landmark study of the Industrial Revolution, *The Unbound Prometheus: Technological Change and Industrial Development in Western Europe from 1750 to the Present* tackles the history of nineteenth-century technology from an economists' position. Landes asks “why, within this European experience, did change occur when and where it did.”³⁶ While his focus is both on Western Europe and the economic history of the Industrial Revolution, the exhaustive detail of the text makes it the primary reference for any scholar of the history of modern technology. Landes' work functions as both a resource for a specific historical era and a frequently cited model of historiography within this subject area. Similarly, Martin Castells' *The Rise of the Network Society, The Information Age: Economy, Society, and Culture* provides a history of the Digital Revolution and its progress into the Information Age as Castells documents the rise of “network society.”³⁷ Castells, a sociologist, documents the relationship between

³⁶Landes, David S. *The Unbound Prometheus: Technological Change and Industrial Development in Western Europe from 1750 to the Present*. Cambridge University Press, 2003. Print. 12.

³⁷ Castells, Manuel. *The Rise of the Network Society: The Information Age: Economy, Society, and Culture*. John Wiley & Sons, 2011. Print.

economics, technology, and culture to support his claim that “power does not reside in institutions, not even the state or large corporations. It is located in the networks that structure society.”³⁸ The scope of Castells’ work is influenced by Landes’ methodology.

Thomas S. Kuhn’s book *The Structure of Scientific Revolutions* is a contemporary of Landes’, but the impact of Kuhn’s 1962 study is far more wide-ranging. Kuhn theorizes scientific and technological leaps via the paradigm shift—a term co-opted by business and industry in the millennial age. A physicist-turned-philosopher of science, Kuhn argues that the history of science is marked by periods of stable growth punctuated by periods of “revisionary revolutions.”³⁹ Kuhn develops this assertion through a critique of what he calls “normal science”—or, the “puzzle solving” aspect of science where a practitioner has a grasp of the context and components of the task and works towards solutions within that frame. This establishes a paradigm of thought and practice that must shift (or be shifted) in order to make conceptual leaps. This argument reduces the authority of objective truth with an emphasis on consensual understanding within the community. Kuhn further develops this thesis with the claim that paradigms are often incommensurable—where you cannot understand one paradigm through the conceptual framework and language of another. For Kuhn, the argument of incommensurability explained the “Darwinian” aspect of science where “[j]ust as new species are characterized by the fact that they do not interbreed, so new disciplines are to some extent mutually incomprehensible.”⁴⁰ Though much abused in the popular conception, the paradigm

³⁸ McCarthy, Helen, Paul Miller, and Paul Skidmore. *Network Logic: Who Governs in an Interconnected World?* Demos, 2004. Print. 224.

³⁹ Bird, Alexander. “Thomas Kuhn.” *The Stanford Encyclopedia of Philosophy*. Ed. Edward N. Zalta. Fall 2013. Metaphysics Research Lab, Stanford University, 2013. *Stanford Encyclopedia of Philosophy*. Web. 2016.

⁴⁰ Hacking, xxxii-iii.

and the paradigm shift were a radical departure from the positivist historical narrative of science. Kuhn's concept of the paradigm shift both highlights and helps to define the complex cultural interactions within periods of socio-cultural revolution.

Shaping both Landes and Kuhn is the work of late nineteenth-century American sociologist and economist Thorstein Veblen's *The Theory of the Leisure Class: An Economic Study of Institutions* (1899). Influenced by Marxist materialism, Veblen's work shaped the modern conception of the relationship between technology and culture, arguing that the relationship between culture and technology is deterministic. Writing that "the machine throws out anthropomorphic habits of thought" Veblen attempts to demonstrate the capacity of individual technology to reshape thinking.⁴¹ In *The Theory of the Leisure Class* Veblen critiques consumerism and class stratification achieved through conspicuous consumption. The leisure class is defined as those exempt from industrial labor—labor that is shaped by technology. The Veblenian dichotomy is an analytical principle describing the power relationship between what Veblen defined as "institutions" and "technology."⁴² He theorized that institutions determine how technologies are used, with the role of the economist to determine if the institutions are employing technology to its fullest capacity. Institutions that thoroughly employ technology are instrumental, while those who do not are more ceremonial. The technological imperative of the instrumental institution renders it forward looking and ultimately shaped by the forces it pursues. But, his arguments ultimately rely on a nineteenth-century, western conception of an innate human nature that shapes all social life buttressed by a narrative of technological idealization. Veblen's influence on historians and theorists of technology comes from his placement of

⁴¹ Veblen, Thorstein. *The Theory of the Leisure Class: An Economic Study of Institutions*. B. W. Huebsch, 1912. Print.

⁴² Ibid.

technology and culture in relation to one another. By viewing technologies as something beyond mere tools of the economy, conceptualizing them as part of the web of social relations, Veblen embeds technology within the culture, as both product and process.

In contrast is Leo Marx's *The Machine in the Garden: Technology and the Pastoral Ideal in America* (1964). Marx, while interested in the role of socio-cultural history is primarily a literary critic, whose work, despite an engaging title for historians of technology, focuses on close analysis of literature. Marx—no relation to the economic theorist—performs a literary analysis that focuses on the concept of the “pastoral ideal” manifest in early American literature. To do this, he focuses on the relationship between “the machine” and “landscape of the psyche” in the United States, writing that “[w]ithin the lifetime of a single generation a rustic and in large part wild landscape was transformed into the site of the world’s most productive industrial machine. It would be difficult to imagine more profound contradictions of value or meaning than those made manifest by this circumstance. Its influence upon our literature is suggested by the recurrent image of the machine’s sudden entrance onto the landscape.”⁴³ Marx’s work is an example of the “maverick literary camp of the historical contextualists” of early twentieth-century literary criticism.⁴⁴ Grounded in the belief that literature is inseparable from its producing culture, works like Marx’s “paralleled to some extent the later split between contextualists and internalists in the history of technology.”⁴⁵

⁴³Marx, Leo. *The Machine in the Garden: Technology and the Pastoral Ideal in America*. Oxford University Press, 1964. Print. 343.

⁴⁴ Meikle, Jeffrey L. “Leo Marx’s ‘The Machine in the Garden.’” Ed. Leo Marx. *Technology and Culture* 44.1 (2003): 147–159. Print. 148.

⁴⁵ Ibid.

For Marx, technology in the form of the machine of the nineteenth-century, has replaced the awesome force of nature. The romantic notion of a natural sublime is supplanted by Marx's "technological sublime," a popular ideology that emphasized the dominance of the railways over nature and as an example of the highest achievement of the human intellect.⁴⁶ In particular, Marx's chapter "The Machine" traces the development of the American ideology of technological progress from the late eighteenth-century through the early nineteenth. Less a technological history—or even an attempt at one—Marx himself offers that he used "the techniques of the literary critic' to get at 'relatively impalpable forms of experience.'"⁴⁷ For historians and theorists of technology, Marx's work provides a foundational example of how to approach the relationship between cultural product and technology as dialectically shaping rather than purely deterministic.

Because of the centrality of the debate on cultural shaping within the history of technology, I employ specific cultural and performance theorists to move the frame of analysis away from economics and towards performance. This project's goal of illuminating how dramaturgy registers the effects of technological change is grounded in the cultural criticism of Roland Barthes and Michel de Certeau. Barthes work challenging the construction of cultural mythology surrounding images and objects by combining sociological analysis with cultural history—with a particular emphasis on the visual—serves as a model of reading the dramaturgical construction of the act of looking. The essays gathered in *Image-Music-Text* and *Mythologies* demonstrate part of the type of analytical method I employ throughout this research. Using semiotic analysis as a base for critical engagement, I am better able to locate the

⁴⁶ Marx, 195.

⁴⁷ Meikle, 151.

performances and performance texts within their historical periods while reading them with an eye towards a new interpretation. The short essays contained in Barthes' *Mythologies* are an example of the intersection between cultural history and semiotic criticism. Barthes' *Mythologies* critiques bourgeois myth-making apparatuses of France in the mid-twentieth-century, drawing on structuralism, semiotics, existentialism and Marxism to articulate a theory of how meaning is constructed. Barthes' focus on objects with a common cultural currency—like cars, food, and wrestling—he defines as containers of cultural signification beyond their object use and immediacy. Within this study technologies like the microscope, the steam driven locomotive, the Web, and performance are cultural objects in the same spirit. Barthes argues that representational strategies generate opportunities of resistance by “mythologists”—those who can open up the system of myth and intervene in its naturalization and essentialization. He writes “[a]nd yet, this what we must seek: a reconciliation between reality and men, between description and explanation, between object and knowledge.”⁴⁸ Barthes' specification of one method whereby we might dissect myth formation, exposes bourgeois narratives as ideology grounded in the specificity of place and time.

In his 1964 essay “The Rhetoric of the Image” Barthes uses his model on purely visual information, demonstrating the construction of the act of looking. He argues that the relative meaning of an image is determined by levels of denotation and connotation, dependent on cultural context. Barthes defines the process of signification within a photograph through examination of what he calls the linguistic, the coded iconic and the non-coded iconic messages. His analysis considers the “veritable ontology of the process of signification,” testing whether an

⁴⁸Barthes, Roland. *Mythologies*. Macmillan, 1972. Print. 159.

image—supposedly the object received through the act of looking—is a “rudimentary system” of communication or one of “ineffable richness.”⁴⁹ Within the essay, he expands the potential of this semiological approach by noting how the constitutive elements of the image may apply to film and other media. Those forms, in turn, affecting the reception of the material. Barthes’ focus on both the denoted and connotated components of an image effectively historicize the material. Read in a new context, both denotation and connotation shift. Yet that shift contributes to the historian’s ability to describe the act of looking within a given period. Similar to Barthes, theorist Michel de Certeau’s work informs both the structure and content of this project, with semiotic readings of perception within contemporary culture. His 1984 book, *The Practice of Everyday Life*, theorizes the impact of activities within the everyday to speak to relations of power, from macro to micro exchanges, with a particular emphasis on the movement through space and time. Using of the act of looking as a means to narrow the field of engagement, I use it in a manner similar to de Certeau’s use of the everyday. The everyday is both theory and methodology to recognize challenges to dominant power structures in any form. Rather than theorizing about the imprecise perception of what is seen—a nearly un-documentable task within history—I engage with where the look might have been directed. This is analogous to de Certeau’s overarching argument in *Practices of Everyday Life*. By focusing on the possible effects experienced by the users and acknowledging the construction of experience by the builders, de Certeau navigates between semiotics and phenomenology, ultimately uniting them in a new cultural criticism. de Certeau’s examination of “the ways in which users—commonly assumed to be passive and guided by established rules—operate” further challenges the implication of a passive receiver in

⁴⁹ Barthes, Roland, and Stephen Heath. *Image-Music-Text*. Macmillan, 1978. Print. 32.

the act of looking.⁵⁰ Theorists of the visual faculty understand that sight is not simply a mechanical or phenomenological process, but both and other simultaneously.

de Certeau's strategized space is defined by power relations, as "the calculation (or manipulation) of power relationships" that is possible when "a subject with will and power can be isolated."⁵¹ The effects of de Certeau's strategy formation include a mastery of place over time and control of place via sight. Privileging the visual, de Certeau argues, is a variation on "panoptic practice."⁵² But because "[t]o be able to see far is also to be able to predict," that sense of simultaneity is tightly controlled within performance.⁵³ The viewer's sense of prediction is limited by what the apparatus will allow them to see. Those qualities of control are the basis of de Certeau's "power of knowledge."⁵⁴ Within strategies there exists knowledge of a specific type, "sustained and determined by the power to provide oneself with one's own place."⁵⁵ The structure of popular performance evidences the drive to continually define the viewer position as linked to, but separate from, the apparatus in order to sustain its attractive authority over the viewer. The self-determining quality of strategic knowledge is limited in that it does not control all information, merely the information it generates from within its defined strategy. The power over the viewer is a "precondition" to the seemingly powerful knowledge of the apparatus.⁵⁶ de

⁵⁰ de Certeau, Michel. *The Practice of Everyday Life*. Trans. Steven Randall. Berkeley: University of California Press, 1984. Print. 1.

⁵¹ Ibid, 35-39.

⁵² Ibid.

⁵³ Ibid.

⁵⁴ Ibid.

⁵⁵ Ibid.

⁵⁶ Ibid.

Certeau's discussion of spatialization in his chapter "Walking in the City" speaks to the relationship between visual performance and the spatial, phenomenological narratives of the viewer. Employing a metaphor of maps and mapmaking, the tactician is analogous to a "walker," navigating the mapped space of a "strategized" city.⁵⁷ de Certeau argues that the operations of strategist and tactician are shaped by power relations. The strategist's authority through the construction of the space that the tactician must navigate; the tactician's authority achieved by claiming the space in unpredicted, and unregulated, ways. Within performance studies, the more common deployment of this analogy positions the audience as the strategist with the panoptic view of the whole performance event. The audience, or the ones who look, are the figures in power. This is especially clear an era like the Restoration, where all performance operated under the eye of King Charles II, but it is as apparent in cinema where the eye of the camera creates an omnipresent viewing position for the audience, continually asserting control by directing the eye towards a specific narrative. Performance, as the tactical response to the strategy presented by the audience, must then navigate the structures presented by those who watch—whether this is the physical space of the performance or the metaphoric space of genre and style. Even the omnipotent viewing position of film is a tactical response to the dominant strategy of the supposed viewer.

Emphasizing the mechanistic act of looking, I invert the more familiar employment of de Certeau's analogy and theorize the audience as the tactician, navigating the strategized form of a performance. If performance is the strategy, then the audience, as tacticians, draw on their opportunistic visual mobility to intersect both the performance event and the narrative in new ways. History privileges time and the panoptic, becoming a strategy. de Certeau writes that

⁵⁷ Ibid, 91-110.

“tasks which face the human apparatus of perception” are not limited to or “solved by optical means.”⁵⁸ Instead, perception “gradually” masters those tasks through “habit, under the guidance of tactile appropriation.”⁵⁹ It is that notion of the tactile, of physical mastery—via the act of looking—that takes the relationship between art object and viewer into a new conception of reality. The visual faculty alone will not untangle the relationship between viewer and object; instead the viewer must become participant in the art form thus making it both more vital and more dangerous. The vitality comes from a viewer, or tactician’s, ability to navigate in a palpable way, the artwork. Utilizing habit as a compass, these experts “walk” the “city” of the object. I argue that de Certeau’s tactical walkers “spatialize” within strategic environments—physical or metaphorical—weaving narratives and relationships together in unpredictable ways through the act of looking. de Certeau’s approach is a means to construct the act of looking as both active and culturally constructed. His championing of the everyday reminds us that culture is the ephemera of what we do, not simply what remains that published, printed or performed. In this way, de Certeau’s conception of the everyday emphasizes the action of a given technology, its material usage rather than simply the monolithic effects of its existence.

The work of art historian Jonathan Crary builds on de Certeau to provide a model for theorizing the act of looking as cultural construction. *Techniques of the Observer: On Vision and Modernity in the Nineteenth-century* shows the construction of the nineteenth-century observer as a historicized audience in the act of looking, shaped by the forces of technology and modernism. He argues that “problems of vision then, as now, were fundamentally questions

⁵⁸ Ibid, 219.

⁵⁹ Ibid, 240.

about the body and the operation of social power.”⁶⁰ Shaped by the work of Michel Foucault, Guy DeBord and Gilles Deleuze and Félix Guattari, Crary’s work focuses on visual perception as constructed by the observer. Crary introduces his subject and method by offering what he calls a “relatively unfamiliar configuration of nineteenth-century objects and events”—like the camera obscura, the thaumatrope, the zootrope—“that rarely appear in histories of art of modernism” in order to “escape from the limitation of many of the dominant histories of visibility in this period.”⁶¹ This study echoes Crary’s in its emphasis on unfamiliar configurations as a means to construct a history of the act of looking. Crary writes that “[f]or the problem of the observer is the field on which vision in history can be said to materialize, to become itself visible. Vision and its effect are always inseparable from the possibilities of an observing subject who is both the historical product *and* the site of certain practices, techniques, institutions, and procedures of subjectification.”⁶² Crary’s work does not emphasize “the separation between art and science in the nineteenth-century” but instead shows how “they were both part of a single interlocking field of knowledge and practice.”⁶³

In a similar vein, art historian Rebecca Solnit’s book, *River of Shadows: Eadweard Muybridge and the Technological Wild West*, argues that our contemporary world began in the final quarter of the nineteenth-century, in the American West, with the photographic experiments of Eadweard MUYERBRIDGE. MUYERBRIDGE, the eccentric Englishman, is most well known as the first person to capture high-speed motion photographically in his attempt to settle a bet for

⁶⁰ Crary, Jonathan. *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century*. MIT Press, 1992. Print. 3.

⁶¹ Ibid.

⁶² Ibid, 5.

⁶³ Ibid, 9.

industrialist Leland Stanford, effectively paving the way for the motion picture industry. Solnit develops her thesis regarding Muybridge's long lasting cultural significance by constructing *River of Shadows* as a biographical narrative through which the reader experiences the multiple socio-cultural forces at work during the period. In it, Solnit reveals how the socio-cultural forces of the film and television industry and the Silicon Valley that shape the modern world are ideologically rooted in the nineteenth-century, showing not only Muybridge's work and its complex influences, but describing how a shift in the visual capability is culturally transformative. Her history of Edward Moyerbrige contributes to the discourse of the visual and its relation to the history of the railroads as technologies of social change. Solnit takes a biography and merges it with a history of a period through interrelated and changing practices in the aesthetics of photography. In particular, her book is a model for the historiographical position I inhabit. Photography is a peculiarly technical art form, the technology of the photograph intimately connected to the artistic qualities of the art object. Solnit investigates how Moyerbrige's experiments with photographing movement relate to his experiences photographing the American West, defined by the burgeoning railway system. Tracing his artistic biography reinforces a narrative where technology and aesthetics are productively, almost organically intertwined.

Solnit's work is indebted to scholar Lynn Kirby, whose *Parallel Tracks: The Railroad and Silent Cinema*—cited above—shows how the development of silent film was facilitated by the advent of railway travel. By analyzing of the prevalence of the train and railway systems represented in early silent film, Kirby models how theorizing around a network of possible texts reveals how “the link between the railroad and narrative is complex and multiple.”⁶⁴ Kirby's aim

⁶⁴ Kirby, 101.

to show the development of the modern sensibility as one shaped by mechanical, technologic forces echoes Crary's project. Relevant to this study, Kirby asserts that "[i]t is in the spectator/passenger that the train and the cinema converge most closely."⁶⁵ Through this reshaping of the act of looking via technology, Kirby reveals the revolutionary capacity at work, writing that "[t]he railroad gave us our first mass vehicle of deception—based on a fundamental perceptual shift in which speed and the visual framed every encounter with the Other."⁶⁶

Within each of the subject areas of my literature are subsets of materials that relate directly the historical periods of my case studies. The material experience of technology as well as cultural history of technology is central to my argument. Generalist histories provide some of the context for my reading of technology in relation to historical periods. Describing the mechanical form and function of individual technologies requires specialist readings as supplements to the socio-culturally driven histories. Histories of technology tend to focus on either the technical development of discrete components or the effects of technology on culture. Reginald S. Clay's *The History of the Microscope*, John H. White's *History of the American Locomotive: Its Development 1830-1880*, and John Severance's *Introduction to Networking: How the Internet Works* provide comprehensive histories of the development of the compound microscope, the locomotive engine, and the technology of the World Wide Web necessary to this study.⁶⁷ These instrument studies tend to be older, indebted to a mode of top down—or rather,

⁶⁵ Ibid, 250.

⁶⁶ Ibid, 251.

⁶⁷ Clay, Reginald Stanley. *The History of the Microscope, Compiled from Original Instruments and Documents, up to the Introduction of the Achromatic Microscope*. London: Griffin, 1932. Print.

Severance, Charles R. *Introduction to Networking: How the Internet Works*. CreateSpace Independent Publishing Platform, 2015. Print.

White, John H. *A History of the American Locomotive: Its Development, 1830-1880*. Courier Corporation, 1979. Print.

device-centered—historiography.⁶⁸ Current approaches favor the socio-cultural shaping model situating discourses of technology within sociological frameworks. The emphasis on either objects or cultural relations is necessary for the specialist historian, but limiting to the theorist. Literature pertaining to instrumentation increases my accuracy in discussing the analogical relations of technology and performance, but I do not seek to be a historian of devices. Instead, it is generalist studies of the history of technologically driven historical periods that provide the necessary balance of instrumentation and cultural context.

Lisa Jardine's collection of texts demonstrates that balance as she constructs a social history of the Scientific Revolution. *The Curious Life of Robert Hooke: The Man Who Measured London* moves beyond biography of an engineer and inventor defined by his technological achievements and instead constructs Hooke as a figure within the everyday life of the Restoration. Jardine's work on Hooke builds on her thesis in *Ingenious Pursuits: Building the Scientific Revolution*, where she documents the interactions between leading virtuosos of the seventeenth-century. For Jardine, it is the exchange and competition between these figures that spurs the revolution. Complementing Jardine's work is that of Marjorie H. Nicholson. Beginning in the 1920s, her research on the role of the Scientific Revolution in relation to literature, dramatic and otherwise, establishes English literature as a tool for revealing the material history of science. Nicholson's work is a multifaceted wedge into the discourse of technology and performance. Her annotated version of Shadwell's comedy *The Virtuoso* provides a material link between the Restoration stage and the Royal Society's early scientists and engineers. Nicholson's focus on the intersection between science and dramatic literature—rather than on

⁶⁸ With one exception: the newer the technological device, the more likely the history is written with an eye toward contemporary historiographical models.

pastoral beauty, or a focused study on historic grammar—demonstrates a methodological shift away from aspects of New Criticism, instead embracing cultural history.

Similarly, Wolfgang Schivelbusch's 1977 book, *The Railway Journey: The Industrialization of Time and Space in the Nineteenth-century* remains the central text for scholars of the cultural shaping of the nineteenth-century railways. Building his argument on a thorough materials history of the locomotive and railway system, Schivelbusch argues that the contemporary familiarity and ease with technology in our daily lives is a learned behavior—our modern consciousness a product of exposure to technological industrialization. He argues that this results in changes in perception across a variety of fronts—time, space, speed, risk. Schivelbusch balances thorough research and support with nuanced storytelling, making it a model of late twentieth-century cultural criticism and an engaging history.

Scholar Paul Israel, director and general editor of the Thomas A. Edison papers at Rutgers University, provides the most thorough accounting of the work of the nineteenth-century inventor. While multiple popular non-fiction and scholarly accounts of the life of Thomas Edison exist— from *Menlo Park Reminiscences* (1936) and *Edison: A Biography* (1992) to *The Wizard of Menlo Park: How Thomas Edison Invented the Modern World* (2008) and even *The Invented Self: An Anti-Biography from Documents of Thomas A. Edison*—Israel's exhaustive compilation of Edison's papers that is the most thorough and annotated.⁶⁹ Israel has produced several texts relating to Edison and his work, including *Edison: A Life of Invention* and *Edison's Electric Light: The Art of Invention*. Both of these texts provide critical contextual support regarding both

⁶⁹ Jehl, Francis. *Menlo Park Reminiscences*. Kessinger Publishing, 2002. Print.

Josephson, Matthew. *Edison: A Biography*. Wiley, 1992. Print.

Nye, David E. *The Invented Self: An Anti-Biography, from Documents of Thomas A. Edison*. International Specialized Book Service Incorporated, 1983. Print.

Stross, Randall E. *The Wizard of Menlo Park: How Thomas Alva Edison Invented the Modern World*. Reprint edition. New York: Broadway Books, 2008. Print.

the state of nineteenth-century technological advancement and Edison's brushes with fame. Israel's project is to preserve and present the material of Edison's life, making it as widely available as possible while maintaining scholarly rigor.

The contemporaneity of the World Wide Web appears to reduce the narratives to either mechanical histories or theoretical explorations of phenomenological affect. Large scale, general histories that range from *The Norton History of Technology* to the specialized *A History of Modern Computing* all begin with the development of discrete technological components and proceed to the effects generated, but the emphasis remains on the mechanical devices.⁷⁰ As cited above, Martin Castells examines the impact of computing technology from a sociological and economic perspective in his three volume *The Information Age: Economy, Society and Culture*, but in focusing on effects, necessarily constructs the machine as the genesis of social change. Christopher Evans, in 1981, published *The Making of the Micro: A History of the Computer* narrativizing the Digital Revolution through the development of the computer. Contemporary popular nonfiction authors of science and technological subjects like James Gleick (*The Information*) Walter Isaacson (*The Innovators: How a Group of Hackers, Geniuses, and Geeks Created the Digital Revolution*) and George Dyson (*Turing's Cathedral: The Origins of the Digital Universe*) improve on this, writing from the position of having watched the Digital Revolution transform into the Information Age.⁷¹ These authors construct histories of the Digital Revolution as one centered on the birth of the machines that came to define the period but with

⁷⁰ Cardwell, Donald and Stephen Lowell. *The Norton History of Technology*. Norton, 1994. Print. Ceruzzi, Paul E. *A History of Modern Computing*. MIT Press, 2003. Print.

⁷¹ Dyson, George. *Turing's Cathedral: The Origins of the Digital Universe*. Pantheon Books, 2012. Print.
 Gleick, James. *The Information: A History, a Theory, a Flood*. Knopf Doubleday Publishing Group, 2011. Print.
 Isaacson, Walter. *The Innovators: How a Group of Hackers, Geniuses, and Geeks Created the Digital Revolution*. Simon and Schuster, 2014. Print.

an ideological lineage. It is the theorists of the Web, like the work of Rob Shields in “Hypertext Links: The Ethic of the Index and Its Space-Time Effects” (2000), George P. Landow’s *Hypertext 3.0: Critical Theory and New Media in an Era of Globalization* (2006), and Charlie Gere’s *Digital Culture* (2009) that begin to move beyond the mechanistic narrative. Central to this study is the work of Kazys Varnelis in *Networked Publics* (2012). Varnelis theorizes the web as a tool of interconnection, where the individual exists only in relation to the whole, their importance less than the significance of the whole. For Varnelis, the Web is defined by its associative power—the connotative in terms of Barthes. I locate the act of looking within this associative power, as the visual faculty is critical to the experience of the Web.

These technological histories and the work of cultural theorists connect to theater and performance history through the act of looking. While this project takes shape under the notion of spectatorship and the act of looking from scholar Herbert Blau’s work *The Audience* (1990), it departs from his dense theorization of watcher and watched as a means to explore the ambiguities of the act of representation. Instead I employ Blau as both a touchstone and a theorist of the act of looking. The use of theater and performance theorists and historians, specific to the periods of study, allow me to theorize the historicized act of looking. Theorists of visual perception, neuroscience, and psychology suffer from being too general and too focused on phenomenological affect. Instead, theorists working from within theater history and theory provide a focused examination of visual reception and perception within the highly structured and visually attuned space of performance.

In terms of the performances, this project focuses on popular narratives and forms. While any specific form, in its historical era, may be directed towards a specialist audience, from the position of the early twenty-first-century, my subject areas are either canonical or otherwise

widely accessible. The work of the Futurists of the early 1900s, led by Tommaso Marinetti, exemplifies direct interaction with the role of technology on shaping the act of looking. While influential and dynamic, that level of direct engagement is less revealing of the cultural tendencies found in this study. But as a part of the avant-garde, the Futurist obsession with speed and the machine reflects a near propagandistic ideological position placed onto the work, rather than arising from the surrounding culture. Because this project is grounded in the notion of the everyday, it seeks to understand how technology saturates the act of looking within dramatic literature and performance that is not terribly obscure or otherwise specialized. The expansive construction of the everyday, as described by New Historicism, translates to a kind of wide accessibility in terms of subject.

In consideration of the popular and the everyday, the work of Joseph Roach functions as both guide and critical contrast to my own research. *Cities of the Dead* (1996) provides a wide-ranging conception of performance over time, moving through culture. His most recent work on the affect of celebrity, *It* (2007), has been an important means of parsing the dramaturgical construction of autobiographical solo performances. Specifically, his work on popular culture illuminates how culture is influenced by the peripheral but dominated by broad appeal. Roach's text *It* explores the materiality of celebrity and the transitory quality of attraction embodied in celebrity performance in order to describe a phenomenological experience. Roach's exploration of the affective power of performance, rooted in close semiotic and textual analysis is reflected in the arguments of this research. Aligned with Roach's work, Marvin Carlson's 2003 text *The Haunted Stage: Theatre as Memory Machine* uses semiotic analysis as a base from which to explore his theory of "ghosting"—"the identical thing [...] encountered before, although now in

a somewhat different context.”⁷² For Carlson, theater’s ability—in all of its sign systems—to condense and retain memory or cultural resonance results in theater less as a place to see the new, and more as a space to illuminate simultaneity. Particularly resonant is Carlson’s metaphor of theater as “memory machine.”⁷³ In this sense, he employs the technological analogy to imply repetition and the ability to produce without control. As a consideration of how audiences experience theatrical events, Carlson’s text describes phenomenological experience but relies on both semiotic analysis and historic evidence to support his claims. While Tom Postelwaite has offered that Carlson’s work “is in danger of becoming a theory of everything,” instead, Carlson uses the analogy of haunting to contain the experiential.⁷⁴

Within the historical periods of this project, specialist historians connect performance and culture in the act of looking. Historian Lisa Jardine’s work, cited above, in relation to the work of Pierre Danchin and Richard Southern are critical in my attempt to reconstruct the act of looking within the Restoration playhouse. Danchin’s *Prologues and Epilogues of the Restoration 1600-1700* is an exhaustive work and the best-collected resource for analyzing the content of this material. While by no means complete in the most literal sense, scholars agree that it provides the most comprehensive cross-referenced and up-to-date data. Southern’s *Changeable Scenery: Its Origin and Development in the British Theater* offers a through exploration of the development of the scenic environment of the Restoration and how it contributes to the act of looking.

⁷² Carlson, Marvin A. *The Haunted Stage: The Theatre as Memory Machine*. University of Michigan Press, 2003. Print.7.

⁷³ Ibid.

⁷⁴Postlewait, Thomas. “The Haunted Stage: The Theatre as Memory Machine.” *Theatre Survey* 44.2 (2003): 271–273. Print.

Historian David Mayer's work is an invaluable resource in parsing the relations between melodrama and film in the late nineteenth and early twentieth centuries. His thesis of the "mobile theater" directly informs my argument for an act of looking informed by the advent of the steam driven locomotive and railway systems. The 2009 book *Stagestruck Filmmaker: D.W. Griffith and the American Theater* provides not just a biography of the acclaimed early filmmaker, but constructs a kind of genetic link between stage melodramas, their place in American culture of the period, and the burgeoning film industry. Work like Michael Booth's *Victorian Spectacular Theater, 1850-1910* (1981) and Allardyce Nicoll's encyclopedic *A History of English Drama, 1660-1900* (1952) contextualize Mayer's narrative of the roots of early film performance. Ben Brewster and Lea Jacobs further define this relationship in *Theater to Cinema: Stage Pictorialism and the Early Feature Film* (1997), arguing that early film specifically used the pictorial traditions of theater as a model of feature film-making. The links between melodrama and the history of film are apparent in Mark Cousins' 2011 documentary series *The Story of Film: An Odyssey*. Cousins' work provides balance to the origin narratives found in texts like Nicholas Vardac's *Stage to Screen—Theatrical Method from Garrick to Griffith* (1949). Analysis of the relationship between the melodramatic stage and early film points toward the development of the mobile act of looking within the late nineteenth-century.

While Philip Auslander offers clear definitions of the Postmodern performance in his contribution to *The Cambridge Companion to Postmodernism* (2004), theorist and critic Elinor Fuchs' *The Death of Character: Perspectives on Theater After Modernism* (1996) offers more nuanced descriptions of postmodern theatrical spectacle and philosophy that speak to the role of the visual within the Postmodern. Fuchs' construction of language in a visual analogy shows how the Postmodern and the Digital Age register the simultaneous meanings and narratives,

produced in part by the viewer and driving a new performative act. Bonnie Marranca's *Theater of Images* (1977) specifically unites the act of looking and the avant garde within the postmodern era. Marranca writes that "[v]alue came increasingly to be placed on performance, with the result that the new theatre never became a literary theatre, but one dominated by images—visual and aural."⁷⁵ This emphasizes the act of looking within performance, and for Marranca is "the single most important feature of contemporary American theatre [...] characteristic of the works of groups and playwrights."⁷⁶ Coupled with David Savran's study *Breaking the Rules: The Wooster Group* (1993), these texts help define the act of looking shaped by digital computing and the World Wide Web as well as the period of postmodern theater making that informed the work of performer Spalding Gray. Gray's work often forms the center of discussions of the form of solo performance. John Gentile's *Cast of One: One-Person Shows from the Chautauqua Platform to the Broadway Stage* (1989) offers an expansive history of the form, while Jordan R. Young's *Acting Solo: The Art of One-Man Shows* (1989) functions more as a record of the re-visioning of the genre in the 1980s. Scholar Deborah R. Geis' *Postmodern Theatric(k)s: Monologue in Contemporary American Drama* (1993) complements these histories while centering on the monologue in theatrical narrative. Geis uses an investigation of what she calls the "tricks" of the postmodern performance to disrupt the narrative process. Geis pays particular attention to the dramaturgy of Spalding Gray's work, and in the process, demonstrates how monologist trickery affects the act of looking.

The expansive notion of performance within this study—described above—to theorize the act of looking means that while dramatic literature like *The Man of Mode*, *The Virtuoso*, *The*

⁷⁵ Marranca, Ms Bonnie, ed. *The Theatre of Images*. Baltimore: The Johns Hopkins University Press, 1996. Print. ix.

⁷⁶ Ibid.

Great Train Robbery, and *Swimming to Cambodia* offer a base of textual excavation and analysis. Supernumerary documents serve to frame the literature within their cultures of production and performance. Rather than just function as evidence of a way of looking, the dramatic texts are one—albeit active—part of the conversation between performance and culture. To this end, Robert Hooke’s *Micrographia: Or Some Physiological Descriptions of Minute Bodies Made by Magnifying Glasses, with Observations and Inquiries Thereupon* (1665) documents new technical practices and scientific knowledge in the late seventeenth-century as well as a performing of the act of looking within the Restoration culture. Hooke’s book is a performative instrument, designed to attract viewers and provide a guide to a new way of looking. Within the late nineteenth-century, *Julius Cahn’s Official Theatrical Guide* similarly functions as a performance of a developing act of looking, documenting the mechanics of traveling melodramas moving via the railway system. The newspaper accounts of the meeting between nineteenth-century luminaries Sarah Bernhardt and Thomas Edison in relation to the Cahn guides of the period are the performative objects that create a cultural matrix to place the performance of Scott Marble’s *The Great Train Robbery* within.

Unintentionally, diaries play an enormous role in this project. The diary, as a means of transmitting first person narrative, is a technology that is both highly mediated and error prone. The everyday-ness of diaries reinforces them as tools for looking, and as objects of authority yet they are an edited glimpse of the lived experience of the writer. As a tool for looking, I recognize that they are able to reveal, if not the actual detail of history, then only a clear illumination of a singular subject’s act of looking. When the relative fame of the writer is a component, publication of the diaries almost guarantee a high degree of editing, often well after the events described, as is the case with the diaries of Sarah Bernhardt. Victoria Tietze Larson’s 1999

translation of Bernhardt's *My Double Life* offers an expanded scholarly look at the life of the actress alongside her diary, but Bernhardt had already heavily edited the work well before Larson completed her new translation. Diaries of the scientists, engineers, or virtuosos of any given era range from the richly detailed—Samuel Pepys and John Evelyn—to the comically terse entries of Thomas A. Edison. Because of the technology he is associated with, a contemporary figure like Sir Tim Berners-Lee's biographical information is available online as well as his very first forays in constructing the World Wide Web. In the case of both Spalding Gray and Henry Rollins, their diaries and autobiographical recollections constitute the actual performance event. Evoking the spirit of the private diary, they are records of a private life made public.

There are the printed diaries, formerly private objects now circulated in the marketplace, and then there are the performative diaries, which perhaps illuminate the constructed-ness of the diarist in the first place. These texts straddle the line of de Certeau's strategist and tactician, offering an apparent panoptic view of a life, produced from a tactician's point of view. The degree to which diaries and first person accounts helped shape the research overall provides insight into the aims of the project. Robert Hooke's exclamation of revenge and disgust at a stage representation of his work, captured in his diary, provides a tangible look into the culture of the period, highly mediated though the material may be. Diaries are a revealing sideways glance at historical fact, a means to construct the net of information that contains the past.

Through semiotic analysis to access the phenomenological experience of different periods, framed by a New Historicist methodology of reading a culture through discrete objects, this project examines the dialectical shaping between culture and technology evidenced dramaturgically through the act of looking. Cultural historians of technology emphasize the interrelatedness of technological advancement and socio-cultural change. Rather than a focus on

what historian Ruth Schwartz Cowan calls the “Wow!” aspects of technological change, the cultural historian seeks what Lynn Hunt calls “the accent in cultural history” of “close examination [...] and an open-mindedness to what those examinations will reveal, rather than on elaboration of new master narratives.”⁷⁷ Cultural history of technology is a subset of the general study of the history of technology. Indeed, the Society for the History of Technology delineates them as a matter of organization, but as with the evolution of theater history and performance studies over the past fifty years, the move has been towards a rich theoretical reading of historical evidence. The theater historian, as a specialist cultural historian, is more closely related to the cultural historian of technology.

Methodology

Historian Robin Fleming offers that “people make things, but things make people” as a means to explain the role of the material in the early medieval culture in Roman Britain.⁷⁸ Fleming’s assertion is particularly relevant to this project, as she employs what could be called radical New Historicism in her research: using archeological and forensic anthropological evidence to construct a biography of the lived experience of the common man. As a historian, Fleming’s work acknowledges the dominant power structures reflected in and by the written record. But her circumnavigation around those structures emphasizes the lived experience of the sensory, material world. This project constructs a history of the dialectical shaping between technology and performance using the techniques of New Historicism and supported by both semiotic analysis and phenomenology. Semiotic analysis provides a set of concrete analytical

⁷⁷ Biersack, Aletta, and Lynn Avery Hunt. *The New Cultural History*. University of California Press, 1989. Print. 22.

⁷⁸ “Robin Fleming — MacArthur Foundation.” N.p., n.d. Web. 22 Oct. 2016.

tools with which to show how the act of looking is manifest through multiple “languages of the stage.” Phenomenology—in particular, historical phenomenology—provides the means to speculate on the received experience of those stage languages.

The methodology for this project is grounded in New Historicism, but instead of the New Historicism of the 1980s, it is what historian Patricia Fumerton describes as “a new New Historicist methodology” that “continues to be fascinated with strange and marginal details. But the strange is rethought in terms of the everyday,” of which, technology plays a vital role.⁷⁹ This is the form of New Historicist historiography that I employ to frame my semiotic and phenomenological analysis of the how performance and dramatic literature register the cultural shaping of technological advancements through the bio-mechanical act of looking. It is the New Historicist practice of reading a larger culture from the connections between literary work and concrete, material objects grounds this project. Stephen Greenblatt, when describing Erich Auerbach’s work as a kind of proto-New Historicist, writes that “[t]he literary work is interesting to Auerbach not for its swerve away from reality—as if reality were something monumental, unchanging, and assured, and as if the literary work needed to make space for itself, apart from the world—but rather for its claim on the world, its ability to give the reader access to the very condition for perception and action, along with the very condition for textuality, at a given place and time, in a given culture.”⁸⁰ Greenblatt’s use of “perception” invites association with the materiality of the visual sense. His position that a literary work—which can be extended to drama and performance—materially grounds an audience in a place and time while

⁷⁹ Fumerton, Patricia, and Simon Hunt. *Renaissance Culture and the Everyday*. University of Pennsylvania Press, 2014. Print. 6.

⁸⁰ Gallagher, Catherine, and Stephen Greenblatt. *Practicing New Historicism*. University of Chicago Press, 2001. Print. 41.

demonstrating how to perceive the world as they do. For this project, the “claim on the world” draws together the apparently disparate fields of technology and performance, for they are imbued with each other as the result of being part of the same cultural landscape. “For Auerbach, textuality—in its specificity, its local knowledge, its buried network of assumptions—is not a system distinct from lived experience but an imitation of it”⁸¹ The technologies of a culture are embedded within the text and dramaturgical practices.

Fumerton’s concerns about earlier forms of New Historicism led her to a *new* New Historicism. She argues that the first practitioners of New Historicism “might have given more prominence to the common” as anecdotal subject matter “but they did so in the service of arguments about hierarchical power structures (arguing from the bottom up as opposed to new historicism’s top-down perspective) that continued to privilege official authority, state ideology, and politics.”⁸² That interest in discourses of power plays a role within this analysis, but rather than using the everyday—in this case, technology—to reinforce a technologically deterministic or dominant narrative, my role is to excavate how deeply interwoven into the fabric of an individual culture the parallel technologies of performance and engineering are. It is because, as Tom Postelwaite asserts, “[h]istorical events reside in no one place[...] but instead in a complex and dynamic interrelationship among all of the possible locations of historical meaning.”⁸³ Described generally in *The Cambridge History of Literary Criticism*, “New Historicism at its most supple, seeks out different, occasionally surprising, conjunctures of historical and literary

⁸¹ Ibid.

⁸² Fumerton, 3.

⁸³ Postlewait, Thomas. *The Cambridge Introduction to Theatre Historiography*. Cambridge University Press, 2009. Print.

vocabulary as they render power visible and enable marginal or unheard voices to emerge.”⁸⁴

Objects, whether artistic or technological, are simultaneously embedded within and products of cultures.

New Historicism of any variation is not without its criticisms as “the idea that a whole culture can be represented by just one of its parts is, indeed, very problematic.”⁸⁵ Within theater history and performance studies, the developing area of cognitive studies has taken issue with New Historicism. Historicism—new or otherwise—is seen to be a relativistic approach that the insights of cognitive science can successfully clarify. Indeed, relativism seems to be the worst insult that a student of cognitive studies can produce against a piece of historical analysis, as if the recognition of individual subject positions was anathema. Writing in the Introduction to *Performance and Cognition: Theater Studies and the Cognitive Turn*, editors Bruce McConachie and F.E. Hart argue that “[b]ecause the human species shares minds/brains that are fundamentally alike, different belief systems are not incommensurable; historians can assume some common mental processes for all people over time when they generate cultural-historical knowledge.”⁸⁶ Setting aside the problematic elision between the words “mind” and “brain,” the extrapolation of a tendency toward similar bio-mechanical processes in all human populations over time is as reductive as the earlier New Historicist practice of reading an entire culture’s experience through a single anecdote or artifact. Cognitivists “grant substantial power to

⁸⁴ Kennedy, George Alexander, Christa Knellwolf, and Christopher Norris. *The Cambridge History of Literary Criticism: Twentieth-Century Historical, Philosophical and Psychological Perspectives*. Cambridge University Press, 2001. Print. 61.

⁸⁵ Fumerton, 4.

⁸⁶ McConachie, Bruce, and F. Elizabeth Hart. *Performance and Cognition: Theatre Studies and the Cognitive Turn*. Routledge, 2006. Print. 7.

discursive practices; yet [...] also insists that authorship be recognized for the cognitive traces it leaves as well as for its manifestation of institutional power.”⁸⁷ The emphasis on material relations or discourses of power does not have to exist in opposition or exclusion of “cognitive traces,” but can complement them in an attempt to form a fully produced picture of history. Writing in *Renaissance Culture and the Everyday*, Patricia Fumerton argues the *new* New Historicism is expansive enough “to include not only familiar things but also collective meanings, values, representations, and practices” where “[a]ttention to the details of everyday life, in all their plurality, complements a further interest by second-generation new historicists in *materiality*. The *sense* of the everyday is very much caught up in sensuality or physicality.”⁸⁸ It is plausible that the “sensuality or physicality” that Fumerton describes can be complemented via the work of cognitive studies. This indeterminism and resistance to absolutism is at the heart of the tensions between cognitivists and other historians of performance. It is within that instability, that flexibility of lived experience, and the distance of history that I find enormous potential; not to answer all the questions but to produce a richer view of history, dependent on the exploration of all of its constituent parts.

The New Historicist emphasis on the anecdote as a means to connect disparate realms of experience is particularly useful when putting together disparate cultural areas like dramatic literature, performance, and nascent technologies. Within this project the practices of New Historicism are mediated in individual case studies by critical theory from the both the performing arts and the philosophy and history of science and technology. Semiotic analysis forms the base of all analysis within the historiographic frame and provides a means to describe

⁸⁷ Ibid, 8.

⁸⁸ Fumerton, 5.

the cause and effect relationship between technology, the act of looking, and culture. Criticisms of semiotic analysis tend to focus on the Structuralist reduction of everything to various forms of language. “Language has a role to play in the construction of thought, but its role derives from the embeddedness of language in the workings of the mind/brain” offer McConachie and Hart. What troubles theorists like McConachie and Hart is that semiotic analysis is rooted in actual language construction, but when applied to non-linguistic forms, the references to language are metaphoric or analogous rather than strictly adherent. As semiotic analysis is an examination of how meaning is made, rather than what meaning is made, the cognitivist approach is more focused on how meaning is constructed within the mind/brain. For this study, which is less focused on the neuroscience behind vision and instead relies on external culture to help determine a historicized act of looking, semiotic analysis provides a means to systematically examine ephemeral material.

Roland Barthes, writing in *Image Music Text* analyzes the construction of the photographic image, in a way conducive to this project. Describing the process by which we evaluate visual information in terms of semiotics he shows the constructed nature of all images and their innate historicity. The “general opinion too has a vague conception of the image as an area of resistance to meaning” and that “the image is an extremely rudimentary system in comparison with language and those who think that signification cannot exhaust the image’s ineffable richness.”⁸⁹ Further, he allows that theater is one of the “whole range of analogical reproductions.”⁹⁰ With a photographic image, its denotational capacity appears to overwhelm

⁸⁹ Barthes, Roland, and Stephen Heath. *Image-Music-Text*. Macmillan, 1978. Print. 32.

⁹⁰ *Ibid*, 17.

any connotative function, and emphasizes the idea that seeing is believing. But Barthes argues that this denotative quality in its “perfection and plenitude [...] has every chance of being mythical”—a myth that is culturally constructed.⁹¹ The analogical image is “a message without a code.”⁹² But in theater, there is a “supplementary message”—the connoted message is the “style of the reproduction.”⁹³ To be a code-less message is to exist in an unreal state of pure information that simply does not occur. “[T]he image—grasped immediately by an inner metalanguage, language itself—in actual fact has no denoted state, is immersed for its very social existence in at least an initial layer of connotation, that of the categories of language.”⁹⁴ Barthes goes on to describe cognitive and ideological connotation in relation to perceptive connotation. By identifying the visual signification process Barthes provides a means to determine the codes of any representation. And the “analysis of codes perhaps allows an easier and surer historical definition of a society than the analysis of its signifieds.”⁹⁵

Bert O. States brings semiology, performance, phenomenology and the act of looking together as he argues for a “phenomenology of [theater’s] semiology.”⁹⁶ His phenomenological reading on theatrical looking in *Great Reckonings in Little Rooms* demonstrates the dialectical utility of both semiotics and phenomenology as tools of performance analysis, rather than place them in opposition. Phenomenological theory in psychology is connected to the study of vision

⁹¹ Ibid, 19.

⁹² Ibid, 17.

⁹³ Ibid.

⁹⁴ Ibid, 29.

⁹⁵ Ibid, 31.

⁹⁶States, Bert O. *Great Reckonings in Little Rooms: On the Phenomenology of Theater*. University of California Press, 1987. Print. 29.

because of the reliance on perception. For both the psychological and theater theorist, perception covers a broader range of direct, but ephemeral, experience. But in studies of visual theory, the focus is on the mechanical act of perception, which elides into the psychological act of perception as a subjective experience. As a theory, phenomenology bridges the gap between psychological and mechanical perception and the structured aesthetic perception of the fine arts. States posits that the eye is “an anesthetized organ” in the act of reading text and identifies that the eye’s primary function is as a lens to the perceptive organ of the brain, “the waiting consciousness on which a world of signification imprints itself with only the barest trace of the signifiers that carry it.”⁹⁷ But in theater “the eye awakens and confiscates the image” because while the text “loses in significative power” it “gains in corporeal presence, in which there is extraordinary perceptual satisfaction.”⁹⁸ The world our senses developed in has rapidly changed. We exist simultaneously in the natural and artificial world—shaping that environment with artificial means to suit our needs. Our performance reflects this as real bodies move with, and through, an artificial environment. Technology changes our mechanical perceptive experience because our phenomenological perceptive experience is changed. This is especially reinforced if the technological mode of seeing is embedded within a performance. States writes that “[a]rt increases difficulty and length of perception.”⁹⁹ For States and other phenomenologists, the “expressive density” demands increased focus that can be reflected in the dramaturgical construction of performance. Concerns surrounding the phenomenological analysis of performance center on phenomenology’s reliance on “empathic and emotional engagement,”

⁹⁷ Ibid.

⁹⁸ Ibid.

⁹⁹ Ibid, 24.

producing a lack of empirical evidence.¹⁰⁰ Theorist David Saltz writes, “[a] strong case can be made for the irreducible role of phenomenology in performance analysis” as empirical evidence cannot “substitute for a phenomenological description of the felt experience of spectating and performing.”¹⁰¹

The practice of historical phenomenology, described by theorists Kevin Curran and James Kearny is useful in bridging the methodologies of New Historicism, semiotic analysis, theatrical phenomenology into something that, while not empirical evidence, is securely located in multiple layers of possible evidence. Specific to this project, historical phenomenology is critical to understanding the embodied historical evidence of technological interaction in order to form connections between the theater or performance, the body of the audience, and a given technology. As “the study of sense experience during a specific historical past” where “two important premises” guide the analysis,

First, that feeling and sensing have a history. [...] because [...] experiences occur in distinct cultural, institutional, and discursive contexts. Having said that—and this leads to the second premise—feeling [is] not [a] historical artifact in the same way that we might argue a book, a building, or even an event is since feeling and sensing are embodied, subjective processes. They resist objectification because they are always, in part, inside us, even as they also depend upon social and material environments to occur.¹⁰²

¹⁰⁰ McConachie, Bruce, and F. Elizabeth Hart. *Performance and Cognition: Theatre Studies and the Cognitive Turn*. Routledge, 2006. Print. 6.

¹⁰¹ Saltz, David Z. “Editorial Comment: Performance and Cognition.” *Theatre Journal*, vol. 59, no. 4, 2007. Web.

¹⁰² Kevin Curran, and James Kearney. “Introduction.” *Criticism* 54.3 (2012): 353–64. Print. 354.

With its “embrace [of] the dynamism and nebulousness of feeling and sensation by thinking in terms of ecologies rather than artifacts, experiences rather than objects, and by abandoning neat distinctions between persons and things” historical phenomenology aligns with semiology to provide a means to historicize sensory experience within this project.¹⁰³

The historiographical and theoretical methodologies of this work are supported by the transhistorical format of the project and my choice of objects for analysis. The transhistorical form of this study allows me to trace common threads over time, revealing a pattern of change rather than a single, specific change. Deep study of individual periods yield the nuances of the act of looking. And, to some degree I seek nuance. At its most ambitious, my use of the transhistorical form is a means to demonstrate how little we have allowed both the historiography and ideology of technology to reflect on how dramatic narrative is formed.

Overall, the content of this project centers on close structural analysis of dramatic literature and performance. The most obscure source material—Scott Marble’s 1895 play, *The Great Train Robbery*—is only available as a poor copy on microform.¹⁰⁴ Available through the University of Washington, I transcribed a fair copy in order to produce the close analysis necessary for my research. It was an unusual effort, as I deliberately sought materials that were widely available. The use of commonly available material is in service to my larger project of tracking the shifts in the act of looking. It is more productive to look toward objects of mass appeal or familiarity in a historic period, as they are generally well documented and thoroughly referenced within their periods of production and in later periods of scholarship. These provide a

¹⁰³ Ibid.

¹⁰⁴ In fact, obscure only in the sense that it is less familiar to a contemporary audience or historian. As a piece on the traveling circuit of the late nineteenth century, it was a financially successful piece of theater, popular enough to merit treatment as a film.

more generalized register of the shifts in looking than more highly specialized, less widely known pieces. And yet, the work of the King Charles II's exclusive playhouses in Restoration London and the early monologues of Spalding Gray appear to be exceptions to this. Perhaps, but they are exceptions within their historic period in the way that the prohibitive price and availability of a ticket to *Hamilton: An American Musical* in 2016 does not evacuate its presence in the culture. Celebrity, notoriety, or popularity are components to determine my choices for analysis.

Delimitations

My study begins with the English Restoration, moving through the nineteenth and twenty-first centuries in order to trace a narrative of western technological development marked by three socio-cultural revolutionary periods: The Scientific Revolution, the Industrial Revolution, and the Digital Revolution. The task of this project is not to demonstrate specific and total period expertise. Rather, the goal is to read disparate historic moments as a means to employ a materialist analysis drawing on the complex cultural relationships of a given period and unpack possible meaning within. Because of these eras and locations of study, this project has a western bias, with a parallel emphasis on white, male, heteronormative narratives—a fact whose political import is not lost on me. As a cultural materialist, this apparently tacit reinforcement of patriarchal narrative should be considered in light of my larger goal of theorizing the effects of technology on dramaturgical structures. I position my study to provide a new theoretical exploration of “open source” materials in the western canon.¹⁰⁵ For this study I am less

¹⁰⁵ Open source refers to a type of computer software where the source code is made available for possible redistribution and modification, encouraging collaboration.

concerned with discourses beyond western theater but that is a clear next step in expanding this analysis as a practice.

My entry into these interdisciplinary waters is not wholly original. If anything, the satirical work of Restoration playwright Thomas Shadwell is an example of how theater and performance has positioned itself in relation to technological advancement. But, in separating this study from the work of artists and scholars who look to technological developments as a means of artistic creation, I join a conversation of cultural historians of technology as well as theater historians. Theater history, as a branch of cultural history practice, exists alongside technological history, neither above, below, or separate.

Within the study of the relationship between technology and performance there is a distinction between applied technology and what might be termed metaphorical technology. Applied technology is the subject that inevitably arises when discussing the intersection between performance and technology—an intersection that can be quickly reduced to placing monitors and circuitry onto bodies, or the discussion of video projections and voice distortion in production. These are vibrant areas of both performance and inquiry, with rich histories, but they do not align with the research questions of this project. Work that focuses on new technologies as components of the performance or elements of the dramatic narrative—the role of train crashes as narrative device in spectacular melodrama, the satires on the Royal Society, or the body modification work of performance artist Stelarc—is dealt with by other scholars interested in the fruitful and direct interactions between technological advancement and performance.¹⁰⁶

¹⁰⁶ A succinct discussion of the role of train crashes as narrative device is found in Ben Brewster and Lea Jacobs 1997 study, *Theatre to Cinema: Stage Pictorialism and the Early Feature Film*. Kyle Gillete's 2014 monograph *Railway Travel in Modern Theatre: Transforming the Space and Time of the Stage* expands the role of the locomotive as a structuring agent. Stelarc (1946-) is the Australian performance artist noted for his work on body modification emphasizing technological augmentation.

This project embraces historian of technology Carroll Pursells's observation that "[t]echnology is not simply embedded in our culture, it is a distinctive part of it"—a claim that places technologic advancements like the steam driven locomotive engine alongside the form of spectacular melodrama rather than emphasizing one form's dominance over the other.¹⁰⁷ To that end, this project focuses on the dramaturgical manifestations of the effects of technological change—how technology shapes our interactions with the world rather than performing with machinery. My interest in the metaphorical and dramaturgical relations of technology causes me to exclude areas of research that may prove fruitful later. But I hold those in abeyance until the current project is completed rather than dismiss them as absolutely unrelated.

In particular over the past fifteen years the field of theater history and research has seen the rise of the sub-specialty of Cognitive Studies, mentioned above. Led by scholars like Bruce McConachie, Rhonda Blair, and Amy Cook their work blends both applied experimentation with neuroscientist partnerships, theorizing about performance, and analysis of the canon employing theories of cognitive science. McConachie writes that "[b]ecause the human species shares minds/brains that are fundamentally alike, different belief systems are not incommensurable; historians can assume some common mental processes for all people over time when they generate cultural-historical knowledge."¹⁰⁸ The cognitivists legitimate critique of the utility of semiotics, phenomenology, and the overall lack of intellectual objectivity and empirical rigor are valuable troublings of analytical and historiographic models.

¹⁰⁷ Pursell, C. W. "Technologies as Cultural Practice and Production." *Technology and Culture*, vol. 51 no. 3, 2010, pp. 715-722. Web.721.

¹⁰⁸ McConachie and Hart, 7.

While the direct experimentation and active interdisciplinarity between historically opposed fields presents intriguing possibilities and revealed compelling evidence on the neurobiological reality of some aspects of performance, the broader theorizing about the structure of the brain and its interpretive capabilities runs the risk of “scientism”—valorizing this work as true or a universal narrative because of the application of science. David Saltz explains that “[i]t is entirely possible to embrace an empirical, experimentally driven approach to theater and performance research, at least as one approach among many, without falling prey to physicalism or scientism. [...] scientific and empirical methodologies afford tremendously exciting opportunities for research, but in pursuing these opportunities we should beware the seductive impulse to replicate the imperialist ambitions of the theories they purport to overturn.”¹⁰⁹ The cognitivist argument for the apparent structural and biological universality of the brain is a disingenuous position that runs the risk of the scientism Saltz warns of. This study differs from the approach of the cognitivists because I construct an argument around determining a historicized act of looking, shown in dramatic structure and narrative, as a means to track the cultural saturation of a technology. Because of the cultural embeddedness of both performance and technology, it is impossible to ignore factors that exist outside the brain’s neurological processes yet have an effect on those processes—factors like race, class, gender, and sexual identity. In their well-intentioned attempt to move beyond those factors, the performance theorists of cognitive science miss something very critical: scientific fact does not cause the culture to disappear. Using the techniques of close reading and materialist analysis, this study uses performance to construct how the act of looking is historicized by technology. In so doing, I

¹⁰⁹ Saltz, 6.

seek to avoid scientism with a focus on the mechanical action of looking in relation to narrative structures and forms of presentation.

Chapter Breakdown

The texts and performances within this study are indices of the cultural saturation of technological advancements in their period of production. These are devices that obliquely highlight the act of looking, emphasizing the process of the acculturation of technology rather than the results of it.

Chapter One draws on seventeenth-century scientific theory to demonstrate how the practice of microscopy was manifest in a shift in theatrical convention. In 1676 the Royal Society of London for the Improvement of Natural Knowledge were so established in the culture that Thomas Shadwell's play, *The Virtuoso*, enjoyed a successful run at the Duke's Theatre. Shadwell writes with Royal Society member Robert Hooke in mind, satirizing the author of 1664/5's popular *Micrographia or Some Physiological Descriptions of Minute Bodies Made By Magnifying Glasses with Observations and Inquiries thereupon*. Microscopy might have remained a purely scientific tool, had it not been popularized by Hooke's combination of artistic skill, scientific interest and social access *via* the Royal Society to publish *Micrographia*, resulting in a veritable microscope craze between 1660 and 1685.¹¹⁰ Popular microscopy reinforced visual primacy as previously invisible worlds were revealed. While microscopy revealed invisible worlds, the imaginative world of the stage was returning to power in London and drawing on new forms of presentation. The two patent houses were royal enclaves, defined by their intensely scopic nature, and located under the King's eye. The visual exchange between play and audience, contained within the theater, was emphasized by the playwrights. The

¹¹⁰ Nicholson, Marjorie. "The Microscope and the English Imagination." *Smith College Studies in Modern Languages*. 16.4, 1935. Print.

theatrical space of Restoration theater used the act of looking to bring the play and the stage into conversation with a narrowly defined audience.

Both the microscope and the playhouse function as tools for looking within the cultural landscape. Through a comparative, close textual analysis of Sir George Etherege's *The Man of Mode, or Sir Fopling Flutter* to Sir Thomas Shadwell's *Virtuoso* of the same year, I argue that Etherege's *The Man of Mode*, while a refined example of the Restoration comedy of manners, is a representation of the cultural saturation of microscopic observation. Reduced in history as merely a well-constructed example of the genre, *Man of Mode* has nothing to do with microscopes or Robert Hooke directly, yet everything about the play is devoted to a microscopic examination of the world it creates. By contrast, in Shadwell's satiric *Virtuoso* the characters dwell within the form of comedy of manners, using thinly veiled references to specific scientific achievements as social commentary. The construction of this play draws on the scopic environment of Restoration theater to frame the audience gaze, while instances of dramaturgical magnification demonstrate how the saturation of microscopy was transformed into cultural practice and made a character in the cultural microscope of the Restoration stage.

Chapter Two focuses on the technology of the piston and cylinder locomotive engine and spectacular melodrama's relation to filmic viewing in order to explore the slow transformation of looking in the late nineteenth-century. I examine the well documented relationship between the nineteenth-century explosion of the railways and early film. The multiple components of this analysis are connected through a publicity stunt/meeting between the actress Sarah Bernhardt and preeminent Industrial Revolution inventor Thomas Edison to link performance and the steam engine driven railways. Bernhardt was on her first American tour, moving along the same, new railways that facilitated the spectacular touring melodramas of the period, like Scott Marble's

The Great Train Robbery. Edison's work with the telegraph, linked to the technology of the railways, was largely responsible for the communications systems that helped to reinforce the worldwide fame of stars like Bernhardt and Edison. Open any book about Bernhardt or Edison and you will find a mention of this meeting. But look for the historical documentation and one is limited to a handful of newspaper puff pieces. The story endures as a novel footnote, a meeting "simple, yet remarkable" that generates a network of associations evoking, rather than delineating, a period. The differences between accounts of the meeting demonstrate the melodramatic sensibility dependent on spectacle. I read their meeting, however contrived, as a transfer point where the act of looking in the theater is evolving into the act of looking for film.

Dominant among all the technologies of the nineteenth-century are the railroads. Rail travel was a mechanism that was shaping perception through speed while unsettling notions of identity through mechanization in the nineteenth-century. The railroads and steam driven mechanisms that spread across the landscape of the nineteenth-century both moved people physically and changed their socioeconomic circumstances, their situation in place and culture irrevocably altered. The intersection between the spectacular form of melodrama and the spectator primed for a new way of looking by train travel is shown by comparison of the text of Scott Marble's 1896 play *The Great Train Robbery* to the 1903 silent film of the same title. The filmic *Great Train Robbery* is arguably the birth of the modern cinematic storytelling, highlighted by its unique direct referencing of the viewer at the end of the film. The emphasis on the passive visual experience, attuned to the visually spectacular, creates an audience for both mediums that is ready to be imaginatively and visually entertained at a remove, as receptors of experience rather than participants.

In Chapter Three I explore the relationship between the act of looking and the technological convergence known as *being online*—the combined technologies of the personal computer, Internet capability, and the World Wide Web. Using theories of networked communication and hypertextuality, I demonstrate how the act of looking is defined and materially shapes performance of the Information Age. Author David Weinberger aptly describes the metaphoric appearance of the World Wide Web as “many small pieces, loosely joined.”¹¹¹ Weinberger identifies that the Web is primarily defined by its disparate form and associative power; existing without a stable location. Instead, being online and using the Web is defined by searching, making the act of looking central. Online access is a tool for looking defined by both interconnectivity and mobility.

The Information Age is marked by the Digital Revolution of the late 1960s through the 1980s. The shift from analogue to digital electronic devices, in part due to the development of the microchip, allowed for computing technology to become a household tool rather than a scientific device or hobbyists toy. The personal computer is the technology of the Digital Revolution, but the World Wide Web is the technology that harnesses the computer for the Information Age. Built on the concept of hypertext—coined by early computer scientist/theorist Ted Nelson in 1965—coded into existence by Sir Tim Berners-Lee in the late 1990s, the technology of the Web allows computing systems around the world to communicate through information sharing.

Theorist Rob Shields likens the experience of interacting with a webpage as a “bricolage” of elements, linked by the technology of the World Wide Web, evoking the postmodern

¹¹¹ Weinberger, David. *Small Pieces Loosely Joined: A Unified Theory Of The Web*. Reprint edition. New York: Basic Books, 2003. Print. xii.

aesthetic, where the juxtaposition of apparently unconnected elements generate new meaning that challenged master narratives.¹¹² Identifying the qualities of a web search as aesthetically postmodern brings the historical period and technology into direct conversation. The combination of interconnectivity and mobility, made accessible by the Web, are evident in the dramaturgical construction of the autobiographical solo performance, popularized by artists like Spalding Gray in the 1980s. Rooted in the postmodern performance techniques and theories of the period, the work of Gray, and solo performers that followed, merge the postmodern aesthetic with the philosophy underlying the technology of the period.

Building on Weinberger and Shields, in this chapter I compare two autobiographical solo performance pieces—the text of Spalding Gray’s 1985 monologue *Swimming to Cambodia* and the 2005 performance of punk rock raconteur Henry Rollins—in order to show how the postmodern-influenced Information Age is registered theatrically. The dramaturgical construction of both performances invites consideration of the intersection between participant and viewer on the Internet. These two works bracket a span of over thirty years to provide examples of a qualitative sensibility of network culture. Linking these disparate pieces together actually reveals more than the individual performances do, as the representational techniques within highlight the development of the networked act of looking in the Information Age, juxtaposing the perceived intimacy of personal narrative with public performance to emphasize interconnectivity defined by mobility.

The Conclusion is my opportunity to encapsulate the divergent locations and periods of this trans-historical study in order to demonstrate how performance registers technological

¹¹² Shields, Rob. “Hypertext Links: The Ethic of the Index and Its Space-Time Effects.” *The World Wide Web and Contemporary Cultural Theory*. Ed. Andrew Herman and Thomas Swiss. Psychology Press, 2000. 145–160. Print.

change beyond adoption and employment. Art historian Rebecca Solnit, writing her own cultural history of technology tracked through the art of photography, describes how technological change radically affects the act of looking. She offers that “[i]n some psychological and spiritual way, we became a different species operating at a different pace, as though tortoises became mayflies. We see much they did not, and can never see as they did.”¹¹³ For Solnit, and for this dissertation, the dominant register of change lies not in what is seen, but in the adaptation of how we look. A new act of looking shapes us into these different species.

Taken together, this dissertation contributes to the discourse of cultural materialist historiography, uniting the cultural history of technology with various forms of performance over time. Using the applied, material reality of technological advances both metaphorically and as concrete tools of analysis of the act of looking allows us to track the cultural saturation of a given technology. Performance is a technology in its own right, as Peggy Phelan points out, but its capacity to reveal the impact of technology on the culture at large demonstrates Herbert Blau’s assertion that looking is “never mere observation.”

¹¹³ Solnit, 21.

Chapter One: “Not Made Monstrous by a Magnifying Glass”: Dramaturgical Microscopy
of *The Man of Mode, or Sir Fopling Flutter* and *The Virtuoso*

But my business here was to see the inside of the Stage and all the tiring roomes and Machines; and ended it was a sight worthy seeing. But to see their clothes and the various sorts, and what a mixture of things there was, here a wooden leg, there a ruff, here a hobby-horse, there a Crowne, would make a man split himself to see with laughing—and particularly Lacys wardrobe, and Shotwell’s. But then again, to think how fine they show on the stage by candle-light, and how poor things they are to look now too near-hand, is not pleasant at all.

Samuel Pepys, March 19, 1666¹

Amidst all those *greater* Designs, I here presume to bring that which is more *proportionable* to the *smalness* of my Abilities, and to offer some of the *least* of all *visible things*, to that *Mighty King*, that has *establisht an Empire* over the best of all *Invisible things* of the World, the *Minds* of Men.

Robert Hooke²

Circulating through Robert Hooke and Samuel Pepys’ comments, above, is an attention to the visual—a dedication to the act of looking. Objects are fluid, shrinking or growing in the eye of the viewer, but the act of looking is valuable. Here Pepys finds disappointment in the

¹Pepys, Samuel. *The Diary of Samuel Pepys*. Ed. Robert Latham and William Matthews. Vols. VI, VII. Berkeley: University of California Press, 1972. Print.

²Hooke, Robert. *Micrographia or Some Physiological Descriptions of Minute Bodies Made By Magnifying Glasses with Observations and Inquiries thereupon*. New York: Dover, 1961 [London: The Royal Society] Print.

revelation of the backstage world, however, Hooke reinforces the idea that the unseen is powerful, knowable, and worthy of presentation to a King.

Robert Hooke's 1665 dedication to King Charles II is as disarming as it is obsequious. Hooke draws on the sense of sight, reinforcing the visible as the real, at a time when the visible world had rapidly expanded. The "least of all visible things" that he offered up are his microscopic inquiries of the world, rendered in lavish illustrations for his book, *Micrographia or Some Physiological Descriptions of Minute Bodies Made By Magnifying Glasses with Observations and Inquiries thereupon*. The microscope's ability to reveal the intricate realities of the world in a novel and accessible way meant that members of The Royal Society of London for the Improvement of Natural Knowledge and the general public found themselves in a veritable microscope craze between 1660 and 1685.³ Beginning with the 1663 publication of Henry Power's *Experimental Philosophy in three books containing new experiments microscopical, mercurial, magnetical* microscopy had become a novel pastime of the early Restoration. Power's book appears to have encouraged Samuel Pepys' purchase of a microscope that same year. Microscopy might have remained a novelty, had it not been taken up by Robert Hooke who was able to combine artistic skill, scientific interest and social access through the Royal Society to produce 1664/5s *Micrographia*. Yet how microscopy, which had been available as technology for over forty years by the 1660s, struck such a chord with Restoration culture is evidenced in Pepys' observation. For him, the revelation of a hidden world is powerful. The things revealed are interesting, but unworthy in the end. His goal in going to the theater that day was to investigate the backstage, to see all sides. A revealed world can reduce presumed authority in the viewer. In Pepys' attempt to magnify his field of observation, he contracted it, while Hooke's

³Nicholson, Marjorie. "The Microscope and English Imagination" *Smith College Studies in Modern Languages*, Vol. XVI, No. 4 (July 1935). Print.8.

work expanded. This tension between the expansive and contractive power of looking during the Restoration is evidenced in that other explosion of the visual, the theater. In this chapter I analyze the texts of Sir George Etherege's *The Man of Mode, or Sir Fopling Flutter* and Sir Thomas Shadwell's *The Virtuoso* to show how the scientific revolution, specifically through the practice of microscopy, materially informs the theater of the Restoration.⁴ Examining *Micrographia* and the microscope as a performative object in relationship to both the newly reconstructed playing spaces and theatrical practices of London shows how the burgeoning scientific and technological ideology of the Restoration is manifest within the culture.

Public theater, of a sort, had reappeared during this same period. The two companies patented by King Charles were located within Westminster, under the King's eye. The performances were framed by independently crafted prologues and epilogues designed to bring the play and the stage into conversation with a narrowly defined audience. The King and Court were the audience the work was directed towards and presented for; in a space so codified, observed and recorded that, who sat where and when can almost be traced out. The presentational style of the performance—the actors aware of their audience, often interacting with them directly—reinforces the dominance of the visual. These are Royal enclaves defined by their intensely scopic nature. The simultaneous popularity of the microscope and the stage demonstrate how the nature of visibility changed.

The most recognizable image from Hooke's *Micrographia*, the flea, provides a physical manifestation of the prominence of looking within the culture. The book form invited the reader

⁴All citations refer to the following editions and will hereafter be noted by act and scene number: McMillin, Scott, ed. "The Man of Mode, or Sir Fopling Flutter." *Restoration and Eighteenth-century Comedy: Authoritative Texts of the Plays, Contexts, Criticisms*, 2nd Edition. New York: W.W. Norton, 1997. Print.

Shadwell, Thomas. *The Virtuoso*. Ed. Marjorie Hope Nicolson and David Stuart Rodes. Lincoln: University of Nebraska Press, 1966. Print.

in, with narrative passages describing microscopes and samples, but the images beguiled. In original form, the large illustrations grew out of the book as the page unfolded. The unfolding plates engaged the reader in the event of observation, acknowledging their presence and participation, literally expanding and focusing the text. But the transformation of the very small into the very large simultaneously transformed the viewer, both granting them visual authority and reducing their scale in the universe. The enjoyment in observation is expressed by the level of detail and involvement. The images are scientifically accurate, but their appeal lies in the detail that draws the onlooker in. Observing, we know what we are seeing is beyond perception of the naked eye and that we have special access. Because the text presumed physical involvement, opening the oversize plates, as well as intellectual the audience/reader could meet the material at whatever level they pleased. Scopophilic satisfaction is achieved by interaction with the text on multiple levels. Text, however, is a tool; a material object in the process of looking.

Scopophilic, or loving to look, is an apt enough term for the Restoration viewer. But this culture's scopophilia benefits from tools for magnification, using different types of oculars to see in varying levels of detail.⁵ Joseph Roach addresses this ocular predilection in his essay "The Artificial Eye: Augustan Theater and the Empire of the Visible" writing that "Hooke illustrates an insect but he also stakes a claim to a realm of knowledge that is only possible within the limits

⁵ An ocular is commonly defined as the eyepiece of a microscope. More broadly, it can describe a device or tool for looking—an aid to vision, but not the view itself. Indeed, one of its earliest definitions refers to a bone of the skull relating to the eye socket. Both noun and adjectival forms described in the OED etymologically derive from Middle French. By the 1590s, it is consistently related to the eye or use with the eye, sight or vision, where a speaker may describe either using "an ocular" like a tool or being called as "an ocular witness" in a matter of law. In this way, the term ocular highlights to exterior, constructed nature of a device rather than the internal, psychological state indicated by "scopophilic." My argument is that the scopophilic drive is supported and enhanced by specific devices outside of the eyes. Due to the specificity of their nature, I employ the term ocular to highlight their use as tools of looking.

of specialized instruments.”⁶ In his focus on optical instruments—the artificial eyes of the title—Roach describes the late seventeenth and early eighteenth-century obsession with looking as ocularcentric—centering on tools for looking. In Roach’s essay, and as discussed above, the expansive and contractive authority of microscopy is materialized in Hooke’s flea. While Roach argues that the image possesses a “tangibility that resists allegorization” he deftly employs it as a means to examine “intercultural encounters” from the late seventeenth and early eighteenth-century voyages of discovery.⁷ His analysis constructs the early Augustan theater as an optical instrument designed to highlight, record and put on the display the new discoveries from abroad. This externalized taxonomic function is where this project and his differ. Roach interrogates theatrical practices that underpin Augustan imperialism, in many ways a result of the culture building projects of the Restoration. In contrast, this project engages in intracultural analysis to examine how the Restoration culture uses the theater as a technology of looking in close self-examination. The culture of the Restoration is a scopophilic one, albeit one that loves to look with instruments. The Augustan period perhaps insists on instrumentation as a means to document. That ocularcentrism Roach identifies within the dramaturgy of Dryden is yet another indicator of how rapidly these technologies were adopted and popularized. Hooke’s *Micrographia* and the theater are in the same discourse of viewing over time—both are oculars to frame and magnify.

The saturation of this ocular scopophilia is exemplified in the dramaturgical differences between two plays of 1676: Thomas Shadwell’s *The Virtuoso* and George Etherege’s *Man of Mode, or Sir Fopling Flutter*. In Shadwell’s satiric *Virtuoso* the characters dwell within the form

⁶ Roach, Joseph. “The Artificial Eye: Augustan Theater and the Empire of the Visible.” Eds. Sue-ellen Case and Janelle G. Reinelt. *The Performance of Power: Theatrical Discourse and Politics*. University of Iowa Press, 1991. 131-142. Print.

⁷ Ibid, 131.

of comedy of manners, using references to specific scientific experiments from the Royal Society as social commentary. The Society's and Hooke's work is part of the dramatic action of the play but it is a world whereby science leads to madness because of its presumed distance from human reality. Microscopy is made a character in the cultural microscope of the Restoration stage, as the practice of science becomes the object of study. Etherege's *Man of Mode* has nothing to do with microscopes or Robert Hooke directly, yet everything about the play is devoted to a microscopic examination of the world it creates. Reduced in history as merely a well-constructed example of the comedy of manners genre, the play is a cultural nexus where the scopophilic nature of the period is laid bare. Dale Underwood, writing on Restoration comedy notes that the "general reader or follower of the theatre" might know a play like *Man of Mode* as "verbally brilliant yet essentially casual, topical and uncomplicated [...] concerned solely with the surface manners of a small and specialized segment of Restoration society."⁸ Even if topical, this same reader may see "that the plays, like the society, were largely divorced from the central problems and preoccupations of their age."⁹ Indeed, Etherege's play is a comedy of manners about surfaces and fashion, but that general reading doesn't interrogate the text in relationship to its period of production. The comedy has been described as, "neither immoral nor moral, but rather spectacular," its goal "[t]o exhibit, rather than to censure."¹⁰ The construction of *Man of Mode* draws on the scopic environment of Restoration theater to frame the audience gaze while

⁸ Underwood, Dale. *Etherege and the Seventeenth Century Comedy of Manners*. New Haven: Yale University Press, 1957. 3. Print.

⁹ Ibid.

¹⁰ Hawkins, Harriett. *Likenesses of Truth in Elizabethan and Restoration Drama*. Oxford: Oxford University Press, 1976. Print. 94.

instances of dramaturgical magnification demonstrate how the saturation of microscopy has transformed into cultural metaphor.

Microscopic History and the Arrival of Mr. Hooke

[M]en are generally rather taken with the plausible and discursive, then the real and the solid part of Philosophy; yet by the good fortune of their institution, in an Age of all others the most inquisitive, they have been assisted by the contribution and presence of very many of the chief Nobility and Gentry, and others who are some of the most considerable in their several Professions.

Robert Hooke, Dedication to *Micrographia*¹¹

Current popular histories on the work of the Royal Society and its members have shed light on the complex social relationships of the period as well as how a man might be a courtier, rake and “natural philosopher” simultaneously. The Royal Society was as much a social club as it was a venue for scientific exploration. It is medical historian Marian Fournier’s *The Fabric of Life: Microscopy in the Seventeenth-century* that documents the multiple figures involved in popularizing the tool during the latter half of the seventeenth-century.¹² Fournier’s focus on the scientific and medical advancements of microscopy addresses how the tool’s history is entwined with diverse cultural fields. The groundwork for Fournier’s work is with Marjorie Nicholson, who, from the 1930s to the 1960s, examined of the impact of microscopes, telescopes and the scientific revolution on the literary culture of England. Together, their work provides a means with which to conceptualize looking as a cultural metaphor.

¹¹ Hooke, Dedication.

¹² Fournier, Marian. *The Fabric of Life: Microscopy in the Seventeenth Century*. Baltimore: The John’s Hopkins University Press, 1996. Print.

The history of microscopic observation extends back to the ancient Egyptians, Greeks and Romans. These cultures knew the properties of magnification utilizing rock crystal, glass and water. Not until roughly 1600 does a specialized device for magnification enter history.¹³ Its invention is part of the wider development of optical devices and optical theory during the Scientific Revolution. Galileo's work on telescopes is both influenced by and influences the development of the microscope. But the acceptance of the microscope as a tool in science is slow. Not only do the early microscopes (like telescopes) suffer from poor lens quality, but they suffer from a limited sense of possibility.

Nicholson points out in "The Microscope and the English Imagination" in *Smith College Studies in Modern Languages* that it was the combination of Baconian and iatromechanical theory that led to the rise in the microscope's usage as a scientific tool. Nicholson argues that Francis Bacon was "the spiritual ancestor" of English microscopy, "though he probably never saw a microscope."¹⁴ It was "[h]is constant insistence upon the need of development of 'instruments and helps'" that Nicholson shows to provide inspiration for development of tools for examination. Though microscopic analysis had been possible for over forty years in 1665, and Bacon gone since 1626, it was not until the rise of iatromechanical philosophy that the microscope came to prominence.¹⁵ Iatromechanics theorizes all natural phenomena as mechanically structured, where "the operation of organic matter was assumed to transpire

¹³ The Dutch father and son spectacle makers, Hans and Zacharias Jansen, are claimed to be the inventors of the compound microscope—or, Galileo Gallili in 1609-10.

¹⁴ Nicholson, 5.

¹⁵ The prefix *iatro-*, from the Greek, relates to a physician or medical treatment. It describes a school of thought from the 17th century maintaining that human anatomy, physiology and pathology can be explained in terms of physics.

through a variety of minute, but distinctive—and therefore visible—structures.”¹⁶ The theory could be tested only by observation, requiring one of the “instruments and helps” for which Bacon had argued.

Thus inspired by iatromechanical theory, as well as Francis Bacon’s idea that science required direct examination of and experimentation with the stuff of life while utilizing “helps,” Robert Hooke saw the utility of the microscope as a means to the end of observing the structures of life. He first exhibited a model microscope at a Royal Society meeting in 1662. By design of the Royal Society, Hooke was encouraged in these observations in order to publish. By April of 1663 he was responsible, as Curator of Exhibits, to bring in at least one microscopic observation to the bi-weekly meetings. On 6 July 1663 Hooke was ordered by the Royal Society to show the King his “microscopical observations in a handsome book, to be provided by him for that purpose.”¹⁷ Working steadily through 1663, Hooke produced observations of “Fine Lawn,” “Honey-comb seaweed,” “Silk from Virginia” and “Teeth of a Snail” for the Society. On 23 November, then President of the Royal Society, Lord Broukner signed a license for printing “Mr. Hooke’s microscopical book.”¹⁸

In 1664/5, Hooke published *Micrographia*.¹⁹ The original text, weighing in at three pounds with fold out drawings measuring 12 x 18 inches was a spectacle on its own. Widely popular, the text consisted primarily of intricate drawings of various biological samples viewed

¹⁶ Fournier, 4.

¹⁷ Hooke, vi.

¹⁸ Ibid, vii.

¹⁹ The text appeared in print by October of 1664, but was not in wide circulation until January of 1665.

through a microscope that he had presented at the Royal Society meetings. The development of the microscope, as shown by the text, extended the range of the senses. Vision, consistently dominant, took on new authority as even the common man, women even, could observe previously invisible worlds.²⁰ To accomplish this the microscope utilizes two elements: framing and magnification. A sample is isolated and framed by the lens for the eye. Greatly magnified, it acquires a new sense of presence in the eye of the viewer. Hooke's Baconian exploration of common objects—cinders, a needle, silk—revealed those every day, supposedly fine things to be coarse in magnification. Not only does vision show a world within the known world, but it changed the repulsive into splendid (the flea or the eyes of a fly) and the delicate into the massive (a razor's edge, a needle point). Lavishly illustrated, the drawings dominated the text, the visual overwhelming the text, becoming the narrative. It is a moment of lovely, historical irony that one of the most recognizable images is that of a flea. The insect, magnified into beauty by Hooke in 1665, would not be recognized as the carrier of the *Yersinia pestis* that swept through London in the same year until the twentieth-century.

The power of Hooke's work extended beyond England. Sometime after *Micrographia's* publication Antoni van Leeuwenhoek, a Dutch textile merchant, became fascinated by the possibilities of microscopic examination, via Hooke's text.²¹ Leeuwenhoek began experiments of his own leading to the simultaneous development of better lenses. Leeuwenhoek's microscope lenses, based on his own proprietary technology, became the finest models available. With these stronger microscopes, Leeuwenhoek made even more minute observations, earning his title as

²⁰ Pepys writes of both he and his wife attempting to make observations with his microscope in early 1660s.

²¹ Jardine, Lisa. *The Curious Life of Robert Hooke: The Man Who Measured London*. New York: Harper Collins Publishers, 2004. 178-9. Print.

“the father of microbiology” from the observation and naming of *animacules* or, micro-organisms. Sharing both his findings and his microscopes with Hooke and the Royal Society in London by 1673, Leeuwenhoek’s discoveries via this expanded method of seeing followed rapidly, one after another: in 1676 Leeuwenhoek first observes single-celled organisms, bacteria. His work helps cement the microscope in the popular imagination in the 1670s.²² Yet, microscopes exhibited such variable lens quality, independent verification of his findings was difficult, if not impossible. The natural philosophers of the Royal Society, the King, the common man could see so very much more, but inconsistently. The sheer improbability of it all—even smaller, more minute creatures—both reinforces and questions the visual faculty. Vision is seductive, but fickle.

The Magnified Culture: The Diarists

Before I went to bed I sat up till two o’clock in my chamber reading of Mr. Hooke’s Microscopicall Observations, the most ingenious book that ever I read in my life.

Samuel Pepys January 21, 1665²³

Rather than a single moment or object, it is a confluence within the culture that reveals how fundamental magnified observation had become. Having described seeing “Hooke’s book of the Microscope” at the booksellers on January 2, 1665 Samuel Pepys declared it “so pretty” to him that he “presently bespoke it,” picking up his copy at a later date.²⁴ Pepys, while a dedicated autodidact, represents the voice of the non-scientist and the effect the tool had on the population

²² Ibid, 180.

²³ Latham, 2.

²⁴ Ibid.

at large. It is Pepys own microscopic investigations, as well as Hooke's text, that inspires him to apply to the Royal Society—eventually serving as its President.²⁵ On 21 January, Pepys wrote the above remarks, after a long day of work. In the dead of winter in a drafty house in London, he burned candles into the night to examine *Micrographia*, not forgetting to record the event in his diary. These entries, detailing not only his interest in the microscope, but his growing association with the Royal Society, reveal something more in their totality. Their details track and confirm moments of historical significance, but as an entire document they serve to magnify the culture being observed. The level of detail in the diary changes from specific to saturating. We gain the sense that there is a pleasure derived in seeing and being seen, but recording and review. Pepys diaries, and the diaries of his contemporaries are a narrative ocular device, expanding the view of the culture.

In the diaries of Pepys's friend and contemporary Sir John Evelyn, the wide popularity of *Micrographia* is balanced by the uneven response to the Royal Society. Evelyn, fellow of the Society and somewhat more of a natural philosopher than Pepys, touches on the religious establishment's reaction to the pursuit of natural philosophy in July of 1669. At the dedication of Oxford's Sheldonian Theatre, designed by Society member Christopher Wren, Evelyn reports "[t]hen followed Dr. South the Universities Orators Eloquent Speech upon it; it was very long and not without some malicious and undecent reflections on the Royal Society as underminers of the University which was very foolish and untrue, as well as unreasonable" [sic].²⁶

This new, popular dominance of the visual faculty through the microscope, coupled with the very old, but newly reaffirmed knowledge of vision's capacity to deceive pervades the

²⁵ Elected as a Fellow in 1665 and as President 1684-86.

²⁶ Evelyn, John. *The Diary of John Evelyn 1620-1706*. Ed. John Bowle. Oxford; New York: Oxford University Press, 1983. 225. Print.

culture. The process of going deeper threatens the balance of power, notions of the superiority of the surface.

The World Onstage

[W]e often take the shadow of things for the substance, small appearances for good similitudes, similitudes for definitions; and even many of those, which we think, to be the most solid definitions, are rather expressions of our own misguided apprehensions than of the true nature of the things themselves.

Robert Hooke, Preface to *Micrographia*²⁷

Hooke's prologue could be a theatrical one, admonishing his audience not to be deceived by the surface of things. Instead, the audience must engage with the subject and look within themselves to understand the complexity of the world. He describes how the visual faculty can deceive if left without thoughtful engagement. The shadowed, simulated world of the public theater had been removed from observation for over twenty years when Hooke published *Micrographia*.²⁸ Yet the "true nature of the thing," once returned, was a manifestation of the ocular scopophilia within the culture. Reappearing for public consumption in 1660, theatrical presentation had radically shifted from its Elizabethan and Jacobean predecessors, while drawing on and feeding the love of the visual within the culture.

The explosion of culture-building activity in the wake of the Protectorate years could be reduced to a culture finally freed to revel in the restoration of monarchy. Instead it is tied to the social goals of the King. Charles II showed a keen interest in a variety of topics. Granting patents to the theaters and the Royal Society within the same year two disparate fields are linked by the

²⁷ Hooke, ii.

²⁸ With the decree of 1642, public theater had been eliminated in England during the Protectorate.

King and elevated by his prestige. What Charles defines as within his scope becomes fashionable, putting theater and science into a relationship of visibility. These patents can be seen as part of his project of building the dominance, both political and social, of the newly restored monarchy. Writing in *The First English Actresses*, Elizabeth Howe argues that “Restoration spectators were by no means exclusively aristocratic, but the vast majority of them, even if they were professional men like Pepys, favored the court and shared its attitudes and interests.”²⁹ She adds that “Charles II was more closely involved with the public theater, as opposed to the court theater, than any other English monarch, and where he went his supporters followed.”³⁰ The public theater spaces of the Restoration were appropriated as Court spaces through such attendance. The gentrification of that once public space into “a select atmosphere of a particular social group” limited broad access but promoted an attractive and intriguing exclusivity.³¹ In effect, the theater is re-created as a microscopic world, hidden from the unaided eye.

While the public theater is being reconstituted in this privileged form, the evolution of onstage presentation style serves the visual. The renovation of the playhouses changed the organization and visibility within the theater. Richard Southern, in his venerable text *Changeable Scenery: Its Origin and Development in the British Theatre*, argues that the new playhouses began with the Stuart royal court. Calling it “the nursery of changeable scenery” this was the scenic environment that would eventually dominate the Restoration period.³² Southern offers that

²⁹ Howe, Elizabeth. *The First English Actresses: Women and Drama 1600-1700*. Cambridge: Cambridge University Press, 1992. 23. Print.

³⁰ Ibid.

³¹ Ibid.

³² Southern, Richard. *Changeable Scenery: Its Origin and Development in the British Theatre*. London: Faber and Faber, 1952. 109. Print.

as far back as the Stuart court, the differences between presentation of a play and a masque meant the gradual development of separate playing spaces and styles of scenic representation. He describes masques as “an occasion for scenery *sine qua non*.”³³ Its “intrinsic nature” was visual performance—more dance than play—with “not a poem on paper nor even a poem recited.”³⁴ But a play required that the space aid the players by “supplying a raised playing-space so that they might be seen of the people, of providing a background [...] which the people might see them and against which their action might be mounted.”³⁵ William Davenant as a poet and masque author of the Caroline court, then patent holder for The Duke of York’s Men during the Restoration, was in a unique position to bring the scenic advancements of court performances to fruition. Taking elements from the court masque stage as well as the play stage and adapting them to fit Lisle’s Tennis Court Davenant’s company transformed the space into a playhouse where spectacle would have a home. What came to be known as the Duke’s Theatre—where both *The Virtuoso* and *Man of Mode* premiered—contained that “important characteristic of all Restoration theaters, and unique to England”: the apron, or forestage.³⁶ This put the performer in closer contact with the audience—recalling the Elizabethan stage—but still allowed for a visually dynamic scenic environment. Joseph Roach describes the effect of the forestage as “theatrical magic” and quotes Colley Cibber, saying

³³ Southern, 85.

³⁴ *Ibid.*

³⁵ *Ibid.* Southern’s focus on the visual elements and architecture of the scenic environment elides over the fact that being able to see the players allows for an increased likelihood of hearing them.

³⁶ Langhans, Edward A. “The Theater.” *The Cambridge Companion to English Restoration Theatre*. Ed. Deborah Payne Fisk. Cambridge University Press, 2000. Print. 7.

he vehemently opposed alterations to the Drury Lane Theatre in 1696 that attenuated the forestage and moved the actors back closer to the scenes. His protest gives a hint at what he valued most in performance. The appearance of actors on the forestage, he argued, made visible “the minutest Motion of a Feature (properly changing with the Passion or Humour it suited)” and made audible “a voice scarce raised above the Tone of a Whisper.”³⁷

Edward Langhans writes that “[t]he forestage was ideal for plays where words were important, and the retention of the area in Restoration playhouses meant that new authors were encouraged to write plays that were highly verbal and full of wit, with frequent soliloquies and asides to the audience.”³⁸ The existence of the forestage and its intimate thrust into the audience, coupled with the verbal dexterity of the Restoration comedies does not definitively show an aural dominance. How to account for the earlier Elizabethan stage (without the pronounced forestage) and its more far more chaotic performance environment of limited seating, large audience, and open-air productions. Those texts are full of the stylistic cues that indicate the expectation of a listening rather than watching audience. Plays of the Restoration are filled with use of cues where the listening is supported by visual confirmation. If anything, consider that the “highly verbal” plays were capitalizing on a new set of resources: the visual capacity of the theater spaces. Long bouts of witty dialogue meant that the audience was looking at the stage for longer stretches.

The psychological intimacy of the forestage was coupled with the increased use of changeable scenery, stage machinery and spectacle, especially by William Davenant, to enhance

³⁷ Roach, Joseph. “The Performance.” *The Cambridge Companion to English Restoration Theatre*. Ed. Deborah Payne Fisk. Cambridge University Press, 2000. Print. 26.

³⁸ Langhans, 8.

the overall visual appeal of the plays themselves. Davenant's first production for the Duke's Theatre, a re-mount of his Interregnum play *The Siege of Rhodes*, utilized moveable scenery. Even though "faced with the unprecedented possibility" of presenting a scene backed with "a relevant setting of full scenery on the stage" and then "of removing the setting of scenery and replacing it with a fresh one relevant to the new action," Davenant used the scenery as an "accompaniment to the exposition of the plot used in a sort of counterpoint."³⁹ The scenery, shutters sliding along grooves on the stage floor as if by magic, and externally cued by a whistle and usually as a specific event within the performance was in conversation with the dramatic action of the play. Whatever authority actors like Cibber may grant to the intimate space of the forestage, the integration of moveable scenery into dramatic structure of a play redefines it from something to be heard into something to be watch. Where the aural faculty had once been the primary means of interaction, now sight gained authority.

Writing in the eighteenth-century, critic John Dennis described the main innovations of the Restoration stage as "Scenes and Women; which added probability to the Dramatick Actions and made everything look more naturally." (Qtd. in Payne II: 277-78.)⁴⁰ That he equates speaking women with painted walls, reducing both to the probable and natural, is indicative of both his cultural identity and the (by his time) historic role of actresses on the English stage. The Restoration exchange of boy-actors for women physically manifests the increasing magnification of the visual within the culture as well as the dominance of the metaphoric eyes of the King. Charles II and his court wanted at home what they had experienced

³⁹ Southern, 114.

⁴⁰ Payne, Deborah C. "Reified Object or Emergent Professional? Reauthorizing the Restoration Actress." Eds. Deborah Payne Fisk and J. Douglas Canfield. *Cultural Readings of Restoration and Eighteenth-Century English Theater*. University of Georgia Press, 2010. 27. Print.

abroad—and in France, there were actresses. Elizabeth Howe has closely examined the history of that appearance and the effects therein, calling “the shift from boys to women [...] social and cultural rather than practical.”⁴¹ The evolution of attitude towards women “in which the woman as well as the man was entitled to full and adequate individuality” as well as the actress gaining “considerable currency and even a token acceptance” within the court culture in the first half of the seventeenth-century acknowledges dual forces operating.⁴² It was tolerable for actresses to appear because the very audience who watched had few problems with their appearance. This was the case in both senses: their presence did not offend and they offered a delightful visual novelty. Howe notes that “[w]hatever the type of play, the heroine’s important quality was her beauty.”⁴³ Calling it a “constant, even obsessive emphasis on the actresses’ sexuality,” Howe articulates the method by which actresses were objectified in the culture through her visually defined qualities. The presence of a woman onstage was a novelty, enhanced by her physical appearance, with those two elements reactivating each other in the mind of the audience member to objectify.

Deborah C. Payne offers a view of the Restoration actress as something beyond sexually objectified novelty. In “Reified Object or Emergent Professional? Reauthorizing the Restoration Actress,” she argues that the professionalization of the actress during this period “functions analogically to objectification” as

the professional also has a peculiar social prominence because of the distinctive value assigned to her labor, a fictitious commodity that is scrutinized and

⁴¹ Howe, 21.

⁴² Ibid.

⁴³ Ibid, 39.

evaluated within the public realm. It is in this sense that objectification and professionalization both participate in the same cultural logic of simultaneously reifying and foregrounding the human subject: they are, in short, mutually defining terms.⁴⁴

Payne cites Elin Diamond's assertion that the combination of Restoration stagecraft and the actress' body created a "spectator-fetishist."⁴⁵ Diamond defines this as "one who takes pleasure in ornaments that deceive the sight" and "whose disavowal of material reality" creates a desire for imaginative representation.⁴⁶ The audience was situated by the theatrical space to closely observe an elaborate and seemingly magical scenic environment. That visual reward was reinforced by the body of the actress onstage—something (at least) novel but certainly titillating. The act of looking was sought and rewarded via the body of the actress.

As the nature of observation changes inside the material space of the theater, the evolution of the prologues and epilogues dramaturgically reinforces the transition away from the listening audience to the socially heightened viewing audience. As a tool for framing examination, they evidence the increasing scrutiny within the culture. Richard Flecknoe's 1660-1 epilogue to *Erminia, or The Fair and Vertuous Lady* [sic] makes reference to alchemy and theater while describing the heightening level of interest in the activities of the stage.

We do confess your curiosities
Have purified the Stage, that otherwise
Had been all dross e're this; and nothing there

⁴⁴ Payne, 16-7.

⁴⁵ Ibid, 18.

⁴⁶ Diamond, Elin. "Gestus and Signature in Aphra Behn's the Rover." *ELH* 56.3 (1989): 519–541. *JSTOR*. Web. 2015.

That might delight a curious Eye or Ear.
 And we 'ar so far from taking of it ill,
 We thank you for it, pray be curious still:
 So shall the Poet, and the Actors too,
 In time become as curious as you.
 For just as Judges by their rigidness,
 Make men more carefull, and offend the less:
 So do you, us, ith' Boxes and the Pit,
 In whose verge chiefly it lies to judge of it.
 Do then by this Play as y' are wont to do
 By others; if't be bad, condemn it too:
 If good, we hope you'l give some sign, that may
 Declare your approbation of the Play.⁴⁷

Flecknoe acknowledges here a circulation between audience and the stage, with the awareness that the audience will “[d]o then by this Play as y’ are wont to do.” What is onstage is equally charming for “curious Eye or Ear” with no privilege over one mode of reception. This is not the epilogue for the testing observer, the natural philosopher.

A sampling from Pierre Danchin’s collection of Restoration prologues and epilogues shows that in the early days of the Restoration (1660-3), these pieces were generally short, averaging fifteen to twenty-five lines. There is less direct evidence of them as part of a performance—instead, they are part of the publication history of a given play. The subjects

⁴⁷ Danchin, Pierre. *The Prologues and Epilogues of the Restoration 1660-1700: A Complete Edition*. Publications Université Nancy II, 1988. Print. 45.

center on the unworthiness of the playwright, the great wisdom of the King and the hope that the audience may find some small amusement in the event. In *A Prologue to the King* in Jordan's 1663 *Royal Arbor*, the author writes, "Long live the King in your Celestial Eyes/The vertue of our late Creation lyes [...] but we are sorry/We should this Night attend on so much glory,/With such weak worth; or your clear sight engage/To view the remnants of a ruin'd Stage."⁴⁸ The sentiments are Royalist, loyalist and begging for mercy while invoking the special, direct sight of the King.

Whereas early prologues plead to the King and audience for acceptance of the humble offerings the later works move away from apology to analogy as the privilege of viewing changes. From approximately 1662-1670, the subjects of the pieces shift from apology to awareness. By 1667s revival of John Dryden's *The Wild Gallant*, the average epilogue had tripled in length to forty-eight lines with references not only to the action of the audience viewing the play, but the playwright observing the world. Beginning, "Of all Dramatique Writing, Comick Wit,/ As 'tis the best, so 'tis most hard to hit,/ For it lies all in level to the eye,/ Where all may judge, and each defect may spye" the piece goes on with "But fooles grow wary now; and when they see/ A Poet eyeing round the Company,/ Straight each man for himself begins to doubt;/ They shrink like Seamen when a Press comes out."⁴⁹ The power of viewing has shifted. It has been "levelled," so that it might exceed the stage and encompass the activities of the town for the purposes of art, for comedy.

No longer humbling themselves under the benevolent sight of Charles II, these framing mechanisms have grown to more precisely position the contents of the stage. As devices in the

⁴⁸ Ibid, 13.

⁴⁹ Ibid, 240.

early Restoration, the prologues and epilogues pointed to the authority of the central subject, the play, through apology for the author. As the period progresses, they become a means by which to stand outside of the play, effectively reducing the dominance of the central event. By having these outside markers continually redefine the meaning and context of the plays, they return interpretive authority to the group rather than the central figure in power. The authors and players do appear to need the benevolence of the King in the same way. Something in the manner of viewing has shifted, reducing the omniscient scope of Charles II's gaze. Framed by an elaborate stage mechanism the very object of study is a wonder never before seen onstage, while the audience is divided in a new space where one can, and should, see and be seen. All while isolated into small spheres of influence, away from the outside world. The overwhelming novelty of the theater space attracts the cultural gaze and the theater itself becomes both microscope and sample.

People Almost Pointed": The Microscopy of *The Virtuoso*

In the summer of 1676 The Royal Society of London for the Improvement of Natural Knowledge was so established in the culture of Restoration London that Thomas Shadwell's play, *The Virtuoso*, enjoyed a successful run at the Duke's Theatre. A satire on the work of the Society and those gentlemen who styled themselves "*virtuosi*" of natural philosophy, the text pokes fun at these early scientists, through the character of Sir Nicholas Gimcrack, a man who "has spent two thousand pounds in microscopes to find out the nature of eels in vinegar, mites in

a cheese, and the blue of plums.”⁵⁰ Gimcrack is modeled on experimental natural philosopher Robert Hooke.⁵¹

On 2 June 1676 in a well-documented anecdotal intersection of theater and science, Robert Hooke himself attended the theater for a performance of Shadwell’s play. He recorded in his diary, “Damned Doggs. *Vindica me deus* [God grant me revenge]. People almost pointed.”⁵² This event places Hooke watching himself magnified into the titular character, all within a space of intense observation. But Shadwell’s satire is too simple to be read as an indicator of this cultural shift towards the visible. Instead, it is useful in conversation with Sir George Etherege’s play from the same year, *Man of Mode, or Sir Fopling Flutter*, to remind us how sophisticated the audience was regarding science of the time and how deeply the new kind of observation had saturated the culture.

The dramatic action of *The Virtuoso* centers on the attempts of Bruce and Longvil, “gentlemen of wit and sense,” to win the sisters Clarinda and Miranda who are under the guardianship of their uncle, Sir Nicholas Gimcrack, the titular virtuoso.⁵³ They are approached

⁵⁰ Shadwell, Thomas. *The Virtuoso*. Edited by Marjorie Hope Nicolson and David Stuart Rodes. Lincoln: University of Nebraska Press, 1966. Print. I.ii.7-10.

⁵¹ There are two common ways to refer to scientists during the Scientific Revolution: natural philosopher or *virtuoso*. They not entirely, but often, used interchangeably until the mid-seventeenth century. Natural philosopher- and, by extension, natural philosophy- have their English etymological origins in the late fourteenth century. It is the study of “natural bodies and the phenomena connected to them” evolving into the modern “physics.” The term “*virtuoso*” comes from the Italian of the late sixteenth and early seventeenth centuries. Defined as “a learned person; a scholar” with an emphasis on science or natural philosophy, it became a term to describe a member of the Royal Society. Around the middle of the seventeenth century the term became associated with dilettantism. In John Evelyn’s diary from 1660-2 are the first usages of the term to imply that a virtuoso is a mere collector of curiosities or a dabbler. From that time, the preferred description is natural philosopher. Shadwell’s decision to title the play based on Hooke *The Virtuoso* is even more inflammatory, as a consequence.

⁵² Jardine, Lisa. *The Curious Life of Robert Hooke: The Man Who Measured London*. New York: Harper Collins, 2004. 322. Print.

⁵³ Shadwell, 8.

by two acquaintances, Sir Samuel Hearty and Sir Formal Trifle. Sir Hearty is a young, bluff gentleman, fond of an “intriguo” and an example of the kind of obnoxious youngster that Bruce and Longvil despair of.⁵⁴ Sir Formal Trifle, “a florid coxcomb,” is a comically verbose orator who invites the gentlemen, as supposed fellow virtuosos, to observe Gimcrack at work.⁵⁵ The success of the gentlemen is impeded by the collective actions of the Gimcrack household who either wish the girls for themselves (Hearty and Formal), believe them to be vindictive “jillflirts” of the age (great-uncle Snarl), or see them as sexual competition for the likes of Bruce and Longvil (Lady Gimcrack).⁵⁶ The women themselves are the final hurdle for the men. While Longvil is in love with Miranda, and Bruce with Clarinda, the ladies are in love with the opposite gentlemen. They devise a complex plot in to test the willingness of their suitors to switch ladies, all while navigating the attentions and interruptions of Sir Formal, the disguise of Sir Hearty as a female perfume seller, and Lady Gimcrack’s attempts to seduce the men. Lady Gimcrack forges letters from the women, directs them into the wrong hands, leaving the heroes on the verge of a duel. In the end the lovers are correctly matched. Gimcrack is brought low by his wife’s threats to expose his mistress and romantic dalliances. His country estate is seized, and he is reduced to penury, unable to draw on his niece’s fortunes, as they have given over guardianship of their persons to Bruce and Longvil. In the end, all three of the foppish characters are laid low: Sir Formal is married to a masked whore, having mistaken her for Clarinda, Sir Gimcrack is stripped of all his scientific equipment and resources and Sir Hearty is dumped out a trunk, abused and

⁵⁴ Ibid, 15.

⁵⁵ Ibid, 8.

⁵⁶ Ibid, 25.

threatened. Gimcrack, abandoned by everyone and everything, cries “would I had studied mankind instead of spiders and insects.”⁵⁷

Gimcrack, with his varied experiments, his love of the microscope and association with Gresham College is meant to be Robert Hooke. Sir Hearty, Sir Formal and Sir Gimcrack make up the Royal Society of the play: a callow youth, a loquacious speaker and a theoretical bench scientist. By associating these foppish characters with the virtuosi, it encourages the audience to see science as literally embodied in them. The dramatic construction of Shadwell’s play limits the potential utility of close observation by making it a series of punchlines. If to look closely and understand is a joke, then it advocates for the status quo. But the emphasis on satire and farce within *The Virtuoso* minimizes the act of looking within the theater to a more surface level of interrogation. The plot is not driven by close observation, but farcical machinations. It is far less sophisticated, but more openly insulting as Shadwell skewers the experimental work of the Royal Society by reducing Gimcrack to a fop.

The fop, as stock character in Restoration comedy, embodies the visual. Dedicated to fashion at its most extreme, the fop is an object of censure through comedic extremism. The fops’ interest in the fashionable means that ideas as well as appearance are available for their consuming interest in the *au courant*. Fops demonstrate the significance of seeing in detail for the culture at large. *The Virtuoso* contains not one, but three foppish characters: Sir Nicholas Gimcrack, Sir Formal Trifle and Sir Samuel Hearty. Gimcrack, Trifle and Hearty all possess the key element of foppish behavior, the intense devotion to the details of appearance. Shadwell, rather than making that an attention to fashionable dress or manners, constructs their devotion toward forms of appearance that suit their interests. Sir Formal Trifle, as described in the first act

⁵⁷ Ibid, 139.

by Longvil, “never speaks without flowers of rhetoric. In short he is very much abounding in words and very much defective in sense.”⁵⁸ Sir Samuel Hearty is a more conventional in his foppery. Bruce claims that he thinks “all mirth consists in noise, tumult, and violent laughter” and describes him as “one that affects a great many nonsensical bywords which he takes to be wit and uses upon all occasions.”⁵⁹ Longvil claims that Bruce’s description leaves “the best part of his character behind,” and his real hilarity comes from the fact that “[h]e has never made love where he was not refus’d, nor wag’d war where he was not beaten.”⁶⁰ His unsuccessful pursuit of satisfaction in any form renders him a farcical clown. Finally, there is Sir Nicholas Gimcrack; a man only concerned about process of his investigations rather than the presentation of a product.

Much discussed, Gimcrack is not revealed until II.ii when Bruce and Longvil are allowed into laboratory. The scene opens to reveal Sir Nicholas “*learning to swim upon a table.*”⁶¹ A swimming master supervises while Gimcrack holds “within [his] teeth” a thread tied to a frog in a bowl of water.⁶² When questioned by Bruce and Longvil if he will ever practice swimming in water, Gimcrack replies “I content myself with the speculative part of swimming; I care not for the practic. I seldom bring anything to use; ‘tis not my way. Knowledge is my ultimate end.”⁶³ The validity of Bruce and Longvil’s interest in Gimcrack’s work is never in question. They take issue with the degree to which Gimcrack and his toadies have pursued that work, to the exclusion

⁵⁸ Ibid, 26.

⁵⁹ Ibid.

⁶⁰ Ibid, 26-7.

⁶¹ Ibid, 43.

⁶² Ibid, 44.

⁶³ Ibid, 47.

of the rest of mankind. Gimcrack's repeated disinterest in "the practic" is how Shadwell constructs him as ridiculous and a fop while providing an opportunity use natural philosophy as the butt of a series of jokes.⁶⁴

The rest of the scene is a series of descriptions of increasingly more bizarre sounding experiments, beginning with Gimcrack's announcement that "I have found, too, that an animal may be preserv'd without respiration when the windpipe's cut in two, by follicular impulsion of air: to wit, by blowing wind with a pair of bellows into the lungs."⁶⁵ All of the experiments detailed have been dramaturgically transformed from actual reports by the Royal Society and into farce. The transfusion of sheep's blood into a "madman" turns him into half-man, half-sheep that "bleated perpetually and chew'd the cud; he has wool growing on him in great quantities."⁶⁶ Yet within the exaggeration is a reflection of the actual science being done at the time. And lest anyone forget that Gimcrack is a reference to Robert Hooke, the description of respiration with bellows cites Hooke's same experiment performed before the Royal Society on 10 October 1667.

In III.iii Gimcrack claims "[t]is below a virtuoso to trouble himself with men and manners."⁶⁷ This professed disinterest in the practical becomes the ultimate crime Gimcrack commits within the dramatic action—hypocrisy. In III.iv Bruce reveals that he has "sent my man to find out Sir Nicholas his strumpet. As soon as he has found her, she'll send for him."⁶⁸

⁶⁴ Ibid.

⁶⁵ Ibid, 47-8.

⁶⁶ Ibid, 51.

⁶⁷ Ibid, 72.

⁶⁸ Ibid, 73.

Longvil adds that “[f]or all his virtue and philosophy this grave fool will be in the fashion too.”⁶⁹ Their desire to reveal Gimcrack’s social hypocrisy becomes part of his complete undoing. By V.vi Lady Gimcrack reveals the truth of Sir Nicholas, in defense of her own adultery: “I have broken open your closet, and here are all your letters from your several whores. And do you think I’ll bear your falsehood without revenge?”⁷⁰ When Gimcrack attempts to cast her out and install his mistress, she retorts, “[i]s this one of the creatures you converse with about philosophical matters!”⁷¹ Her final threat is more serious, “Sir, I shall publish your letters into bargain and send ‘em to Gresham College. Then you’ll be more despis’d than now you are there.”⁷² Gimcrack’s aside and reply “O misfortune! That will be worse than all the miseries can happen to me—Hold, madam, I have thought on’t; and to show how much I can be a philosopher, I am content it should be a drawn battle betwixt us” show the lengths he is willing to go to avoid being revealed as a fallible human.⁷³

At the end of the play, when Gimcrack realizes he has been abandoned at every turn he cries out, “Am I deserted by all? Well, now ‘tis time to study for use.”⁷⁴ Now he is willing to entertain utility for his scientific research. But “‘tis time” only because of his financial situation. Science needs to have a financial gain in order to be of use. What Gimcrack turns to is one of alchemy’s classics in his pursuit of useful study, “I will presently find out the philosopher’s

⁶⁹ Ibid.

⁷⁰ Ibid, 134.

⁷¹ Ibid.

⁷² Ibid, 135.

⁷³ Ibid.

⁷⁴ Ibid, 139.

stone. I had like to have gotten it last year but that I wanted May's dew, being a dry season."⁷⁵ In one turn of phrase, Shadwell associates the new science with the indulgence and burgeoning suspicion of the alchemists while positioning the only good science as that from which a profit can be made.

Gimcrack as the foppish embodiment of natural philosophy renders the discoveries of the new science, of the Royal Society, absurd. By focusing the comedy on the work of Hooke and the culture of microscopy the act of close observation becomes ridiculous. The world of Shadwell's characters is made up of "intriguos" and "pert whores in vizards" at the playhouse with assignations in secret locations and forged letters taken for real.⁷⁶ The information Gimcrack obtains is not useful, it does nothing to promote or benefit mankind, according to both his critics and the virtuoso himself. It is not just Gimcrack's similarity to Hooke that incites him, but the threat to the practice of science. The caricature of Hooke was delicious, but common enough for a Restoration audience used to parsing the real-life individuals out of the theatricalizations. In this manner, society turned Hooke into the sample, with the power of its collective gaze and analysis turned upon him. Gimcrack- and Hooke in the theater- represents all of the work of the natural philosophers.

In I.ii of *The Virtuoso* the beleaguered nieces of Sir Nicholas Gimcrack complain of their situation. Miranda rails against "[o]ne who has broken his brains about the nature of maggots, who has studied these twenty years to find out the several sorts of spiders, and never cares for understanding mankind."⁷⁷ It is knowledge for no practical purpose. Science is a world removed

⁷⁵ Ibid.

⁷⁶ Ibid, 15, 53.

⁷⁷ Ibid, 22.

from the reality of the characters the audience is meant to identify with. *The Virtuoso* creates a world where scientific knowledge is reduced to an acquisition. It is an ornament rather than a practice or way of thinking about the world. This reduction of research to a joke signals a cultural tension surrounding the new science.

“People almost pointed,” Hooke wrote. We are with him in this mediated moment of attention. The sample looks back up the observation tube. The people, the audience of the Restoration, the court and eyes of the King somehow resisted open acknowledgment of the event before them. There is intense shame in that phrase, the mortification of someone who wishes to remain invisible. But how could he not know that walking into a theater, of all places, would render him legible on the cultural stage? To be in the Duke’s Theater is to practically demand the focus of attention. Or perhaps it is the sigh of relief that there was almost recognition, but in the end, it was passive.

Attention to Detail in *Man of Mode*

[T]he most vulgar Instances are not to be neglected, but above all, the most instructive are to be entertain’d; the footsteps of Nature are to be trac’d, not only in her ordinary course, but when she seems to be put to her shifts, to make many doublings and turnings, and to use some kind of art in indeavouring to avoid our discovery.⁷⁸

Robert Hooke Preface to *Micrographia*

George Etherege’s 1676 play premieres at the height of the microscope mania, the same summer as Shadwell’s satire, in the same theater. The humor of the play’s genre works because the comedy of manners supposes an informed audience of like-minded members. The action of

⁷⁸ Hooke, iii.

looking in *Man of Mode* is embedded in the devices and incidents of the play to reveal the cultural proclivity towards observation. *Man of Mode* is defined by affected fops, stylish wits and romantic intrigues. The intrigues that drive the narrative turn on moments of revelation and discovery. In this way, the very form of the play frames a narrative of close observation that rewards the audience with comic delight. The satisfaction of the comedic revelation depends on seeing the plot unfold, reinforcing the delight in looking for the audience. In this manner the conventions of the genre reward the idea of looking, and looking closely.

Etherege's *Man of Mode* centers on the romantic manipulations of Dorimont—a London gentleman, a rake and much desired. At the start of the play Dorimont is trying to break off his affair with Mrs. Loveit (a gentlewoman of the town) while maintaining his new relationship with her younger friend, Bellinda. Assisted by his companion, Medley, Dorimont learns of the arrival of a beautiful heiress in town who has expressed her admiration for him. Dorimont's romantic intrigues are contrasted with the adventures of his foppish friend, Young Bellair, who is in love with Emilia, a companion to Lady Townley. But his father, Old Bellair, is intent on Emilia for himself, wishing to marry Young Bellair off to Harriet—the newly arrived heiress. The last arrival in this parade of gentlefolk is Sir Fopling Flutter, a fop of the highest order lately returned from Paris and the butt of all jokes, but recruited to help Dorimont rid himself of Loveit. The dramatic action of the play centers on Dorimont's adventures of dispatching his relationship to Mrs. Loveit while maintaining a burgeoning affair with Bellinda and falling in love with Harriet. This is intertwined with the more highly comedic plot of Young Bellair and Harriet attempting to dupe their comically rural guardians while escaping marriage to one another. Through a series of misadventures, masks and elaborately staged chance meetings, Young Bellair and Emilia are secretly married while Harriet and Dorimont admit their feelings to one another. Dorimont

declares to Harriet that he “will renounce all the joys I have in friendship and in wine, sacrifice to you all the interest I have in other women.”⁷⁹ Harriet recognizes that “all beyond High Park’s a desert to you, and that no gallantry can draw you further” yet this ultimate man of the Town is willing to join her in Hampshire, offering that “[t]o be with you, I could live there and never send one thought to London.”⁸⁰ The lovers are united, the parents and guardians reconciled to the situation, and Loveit and Bellinda sent on their way, bitter and lovelorn, respectively. Fopling announces that “[n]o one woman is worth the loss of a cut in a caper,” washing his hands of his supposed romance with Loveit and prepares to seduce “the whole sex in a ballet.”⁸¹ This decidedly city comedy ends with Old Bellair addressing the pit, “And if these honest gentlemen rejoice, /Adod, the boy has made a happy choice.”⁸²

As a thinly veiled dramatization of the libertine lives of the men at court, like the Earl of Rochester, Etherege’s play is crafted for an audience to read densely. The text assumes that the audience will understand the analogous character readings—Dorimont as Rochester, Medley as Sedley, etc. Because the theaters act as court enclave, going to the theater was an act of participatory observation. The audience may not just know who these people/characters are, they may *be* the very people dramatized onstage. An audience member may be reading the stage locally while reading the crowd reading the stage thus emphasizing the act of looking as framed by the mechanism of the stage.

⁷⁹ Etherege, 159.

⁸⁰ Ibid, 160.

⁸¹ Ibid, 165.

⁸² Ibid, 166.

The detailed attention to viewing and display belies the sense of the apparatus whereby infinite worlds are revealed through the new extension of the visual senses. The play begins with Sir Car Scroope's prologue highlighting this scopic quality. Thirty-nine lines in length, Scroope's prologue equates playwrights to "gamesters" and the muse "[I]like a modest wench first enticed to sin."⁸³ Once a playwright has known "delight," they will not leave off. Scroope turns playwriting into a none-too-subtle double entendre for whoring.⁸⁴ The play is the whore, the audience is the customer, casting the entire theatrical event as an intimate, yet commercial, encounter. It turns to a rail against "gaudy nonsense" telling the audience they are only getting what they deserve because their tastes have sunk so low.⁸⁵ Scroope's prologue argues that as the audience becomes more fashion conscious, more concerned with low trivialities, the stage will sink to meet the taste.

Then, for your own sakes, be not too severe,
 Nor what you all admire at home, damn here.
 Since each is fond of his own ugly face,
 Why should you, when we hold it, break the glass?⁸⁶

The audience, invited to see themselves onstage, is framed and examined through the theater. The analogy solicits open analysis on the part of the audience. Not simply a tool for reflection, the mirror is also a means of adjustment. While it does not distort—reduce or enlarge—the device implies that the audience may possess the authority to both examine and change what it saw. They watch themselves, by proxy, as others watch them—all the while, keeping a close

⁸³ Ibid, 88-9.

⁸⁴ Ibid.

⁸⁵ Ibid.

⁸⁶ Ibid, 89.

watch on one another. This is not merely a moment of reflection but magnification in a culture devoted and highly attuned to looking.

In IV.i Dorimont's new object of seduction, Harriet, articulates the discourse between the theater, the audience and the visual through the stage when she offers that "[b]eauty runs as great a risk exposed at court as wit does on the stage, where the ugly and the foolish all are free to censure."⁸⁷ The retort takes aim at the audience, a Court audience highly attuned to the beautiful made visible onstage. This passage acknowledges the evenness of viewing, a democratization of the gaze. Harriet, as a character, spends the entire play on display, and a significant portion of that display involves her active participation, but none more so than in this scene. There are no passive subjects within this play and Harriet's participation in the charades of wooing speaks to her knowledge of herself and Bellair as objects on display. Their discussion while acting the part of young lovers in III.i is a moment of dramaturgical magnification.

HARRIET. Peace, here they come. I will lean against this wall and look

bashfully down upon my fan while you, like an amorous spark, modishly
entertain me. [...]

LADY WOODVIL. See your son and my daughter. They have improved their
acquaintance since they were within.

OLD BELLAIR. Adod, methinks they have! Let's keep back and observe.

YOUNG BELLAIR. [*to* HARRIET] Now for a look and gestures that may
persuade 'em I am saying all the passionate things imaginable.

HARRIET. Your head a little more on one side. Ease yourself on your left leg and
play with your right hand. [...]

⁸⁷ Ibid, 136.

YOUNG BELLAIR. Will you take your turn and be instructed?

HARRIET. With all my heart.

YOUNG BELLAIR. At one motion play your fan, roll your eyes, and then settle a kind look upon me.⁸⁸

They instruct each other in proper romantic form with an eye to Lady Woodvil and Old Bellair watching them. The audience is at one remove, watching Harriet and Bellair watching their parents, the parents watching the children, or watching through both sets of characters, the act of being observed. The clinical, even scientific, detail that Harriet and Bellair use to adjust one another reflects the level of magnification that they are being seen at. And they are hardly wrong. This moment is an index of the value of visual scrutiny in the culture. The passage calls into question the trustworthiness of appearance through the comedy of the parents' misconception of outward display. The scene reveals the culture's uncertain relationship with the visual. Appearance is dominant, but easily manipulated. The extent of the cultural scrutiny is made clear at the end of the exchange, when Harriet offers "By the good instructions you give, I suspect you for one of those malicious observers who watch people's eyes, and from innocent looks make scandalous conclusions."⁸⁹ Bellair's reply to Harriet's jibe "I know some, indeed, who out of mere love to mischief are as vigilant as jealousy itself, and will give you an account of every glance that passes at a play and i' th' circle" includes the immediate audience within the moment of performance while introducing the places of visibility within the culture and the act of viewing in them.⁹⁰ Conducted in small social spaces, like the theater, made up of characters

⁸⁸ Ibid, 116.

⁸⁹ Ibid.

⁹⁰ Ibid.

operating in closed social spheres all actions within those spaces are writ large. Within the culture of the play, and by extension the theater audience, the very tools of observation are scrutinized for motive. It becomes a jab at scopic authority as the court, through the theater, can indicate that their wariness of the scrutiny.

Never completing the visually ouroboric move into the playhouse the central scene of the play takes place on the Mall in III.iii. The Mall was the fashionable promenade located on the northern edge of St. James' Park. In 1676, newly redesigned in a more formal, French style and opened to the public by King Charles, St. James was notorious as a place of sexual assignation. It is the only open social space seen onstage, but the audience never achieves a kind of broad, societal overview. The closest is when "*four ill-fashioned fellows singing*" enter and intrude upon the characters of Bellinda, Mrs. Loveit and Sir Fopling.

MRS. LOVEIT. Foh! Their periwigs are scented with tobacco so strong—

SIR FOPLING. —It overcomes our pulvilio. Methinks I smell the coffee-house they come from."⁹¹

These intruders don't even have the dignity to be drunk, just caffeinated. The First Man recognizes Mrs. Loveit as "Dorimont's convenient," and Fopling as "[a] caravan, lately come from Paris."⁹² The internal acknowledgment of all of the character's status within the play serves to reinforce the audience's own status, echoing the mirror of the prologue. The mocking summary by the three men bolsters the centrality of the main narrative. The "rabble[s]" observation of the characters reminds us that the Mall was an open, moderately unregulated

⁹¹ Ibid, 129.

⁹² Ibid.

space.⁹³ Fopling notes, “‘Tis pity there’s not an order made that none but the *beau monde* should walk here.”⁹⁴ While located in an open space, this scene itself operates like a microscope, selecting, staging and focusing to construct the theatrical gaze as cultural gaze.

A narrowed frame and focus allow factions of society to be ignored, but they do not disappear. The characters can see and misinterpret, or choose to ignore, but that does not make them less real. In their enclaves, they ignore the society that displeases, but that society intrudes upon their gaze, unsettling them. The fellows, with “the smell of the coffee-house” upon them exit when they sense the other group notices them. Both parties wish not to be seen, to be manifest as real by the other. Doing so would reduce Fopling and force the so-called rabble to include the dominant culture. Both groups stand in contrast to Hooke’s admonition that we must examine all elements of nature to understand the truth of its construction.

In III.iii Dorimont accuses Harriet of being “greedy of the praises of the whole Mall.” She denies the accusation, to which Dorimont replies,

As I followed you, I observed how you were pleased when the fops cried ‘She’s handsome, very handsome, by God she is!’ and whispered your name—the thousand several forms you put your face into; then, to make yourself more agreeable, how wantonly you played with your head, flung back your locks, and looked smilingly over your shoulder at ‘em.⁹⁵

Etherege provides a moment of detailed observation that Harriet does not miss—for to be so closely observed by Dorimont is her precise desire. With a nod to her former performance with

⁹³ Ibid.

⁹⁴ Ibid.

⁹⁵ Ibid, 126.

Bellair, she demonstrates Dorimont's behavior back to him: "I do not go begging men's as you do the ladies' good liking, with a sly softness in your looks and gentle slowness in your bows as you pass by 'em. As thus, sir [*Acts him*] Is not this like you?"⁹⁶ The exchange provides the mirror that Car Scroope's prologue promised as the actions of the mimicry and open observation of the characters magnifies the importance of watching within the play as well as the culture it reflects.

References throughout the text to the practice of masking, specifically in the theater, are another means to show the intense magnification operating within the culture. In I.i Medley comments that Dorimont's "business" keeping him from Mrs. Loveit "has been with a vizard at the playhouse; I have had an eye on you."⁹⁷ Medley, out of care for Dorimont has kept track of his activities and reminds the audience how others can do the same, even as they attempt to mask their identities. In III.ii Harriet points out to Dorimont that he is "for masks and private meetings, where women engage for all they are worth, I hear."⁹⁸ She plays innocent by drawing on hearing rather than direct observation. Dorimont is free to dispute, and she is left free to believe him, not having directly observed his behavior. But Harriet prefaces her comment by remarking that she is for "[a] little harmless discourse in public walks or at most an appointment in a box, barefaced, at the playhouse."⁹⁹ She indicates what seems to be a kind of simple honesty, presenting herself openly. Yet if she and Dorimont were to do such a thing, it would formalize their relationship to a degree beyond dalliance. Her statement indicates the magnified qualities of seemingly private

⁹⁶ Ibid.

⁹⁷ Ibid, 94.

⁹⁸ Ibid, 125.

⁹⁹ Ibid.

interactions taking place in public spaces. The mask is an irregular ocular device, both heightening and limiting the visible.

The device of the mask appears to its fullest in IV.i when Fopling appears at Lady Townley's, masked. Medley tells Young Bellair, "Make him own himself; a fool is very troublesome when he presumes he is incognito."¹⁰⁰ Fopling, pursuing Harriet asks "[a]re you women as fond of a vizard as we men are?" playing on the sense that the men are fond of masked women.¹⁰¹ Having declared her general dislike of masking, Harriet's response attacks both Fopling and the women who mask themselves offering that she is "very fond of a vizard that covers a face I do not like, sir."¹⁰² Young Bellair gets Fopling to remove his mask, because "[t]his was intended as a private meeting."¹⁰³ To mask in private does not magnify anything, it is merely intrusive. The private sphere is as detailed as the culture gets with basic magnification. Moving into this sphere, characters must operate with different devices, a new focus. The use of masking within the play is not only a cultural fact, but is an indicator to signify the intensity of the magnification, the subtlety of the focus and adjustment available to the culture.

While these affairs of Dorimont's are the center of the dramatic conflict within the play, the title shows who operates as the focusing device. The play's substance draws on fashion and the fashionable. It is, in all things, a close observation of the details of society, drawing on Sir Fopling Flutter as the figure through which to examine. Fopling does not make a physical appearance onstage until III.ii but he is present in the virtual space of the play, in the form of

¹⁰⁰ Ibid, 137.

¹⁰¹ Ibid.

¹⁰² Ibid.

¹⁰³ Ibid.

other character's discussion of him, from I.i on when Medley offers that Fopling is "lately arrived piping hot from Paris," establishing the city as the seat of excess.¹⁰⁴ Medley, in his role as lead gossipmonger knows of Fopling, but so do Young Bellair and Dorimont, the latter describing him as "the pattern of modern foppery."¹⁰⁵ Fopling's role in the plot is made clear when Young Bellair describes his presence at Aunt Townley's with Mrs. Loveit. Fopling, by chance, serves Dorimont well as "[he] wanted a fop to lay to her charge; and this is as pat as may be."¹⁰⁶ He becomes a tool of both Dorimont and Loveit.

The fop, as stated earlier, is a stock character designed to embody the visual. Medley describes him first in I.i, "yesterday at the play" in a moment that introduces the level of intense scrutiny of the culture through the devices of the theater and the fashionable.¹⁰⁷ What Medley notes is "a pair of gloves up to his elbows, and a periwig more exactly curled than a lady's head newly dressed for a ball."¹⁰⁸ The attention to fashion is part of the discourse of the visible within the culture, but it is not simply an overall image, it is the dissection of detail—the glove length, the hair curl, the mode of gesture. The place of the theater, and the place of looking within it, are tied in Medley's use of analogy in his description of Fopling, "His head stands for the most part on one side, and his looks are more languishing than a lady's when she lolls at stretch in her coach or leans her head carelessly against the side of a box 'i the playhouse."¹⁰⁹ Yet, comedy

¹⁰⁴ Ibid, 98.

¹⁰⁵ Ibid.

¹⁰⁶ Ibid, 99.

¹⁰⁷ Ibid, 98.

¹⁰⁸ Ibid.

¹⁰⁹ Ibid.

attacks social norms held dear by a culture. It relies on extremism and inversion, the daily stuff of a fop. Sir Fopling Flutter and his characteristics are critical to the dramatic action of the play, but his centrality demonstrates the significance of seeing in detail. Fopling magnifies the trends of the age, repeatedly noted by the other characters. This process magnifies, by focusing on the details of fashion and the fashionable.

In IV.ii Fopling, Medley and Young Bellair arrive at Dorimont's after his assignation with Bellinda. As they discuss who they might have seen leaving, Fopling begins to dance by himself.

YOUNG BELLAIR. See Sir Fopling dancing.

DORIMONT. You are practicing and have mind to recover, I see.

SIR FOPLING. Prithee, Dorimont, why has not thou a glass hung up here? A room is the dullest thing without one.

YOUNG BELLAIR. Here is company to entertain you.

SIR FOPLING. But I mean in case of being alone. In a glass a man may entertain himself—

DORIMONT. The shadow of himself, indeed.

SIR FOPLING. —Correct the errors of his motions and his dress.

DORIMONT. I find, Sir Fopling, in your solitude you remember the saying of the wise man, and study yourself.

SIR FOPLING. 'Tis the best diversion in our retirements.¹¹⁰

While Fopling asserts that a mirror can provide entertainment, Dorimont rejoins that only a “shadow” of self is represented in the reflected image. A room without a mirror, without the

¹¹⁰ Ibid, 145.

chance to examine the self in detail is no room at all. But for Dorimont, who wishes to be fashionable, but not seen as a fop, the indulgence of self-examination is not for him—rather, he seems to rely on the reflection of others. Ultimately, this is what makes Sir Fopling Flutter a fop—his satisfaction in the “shadow” surface reflection of things. Focusing on details, “correcting the errors of his motions and dress,” allows the vision to magnify and analyze in detail. But the tension between Dorimont and Fopling reflects the cultural tension of magnification. It is just as dangerous to mistake the magnified sample for the whole as to diminish the complex beauty of the mundane.

The Expanded Visible World

[B]y the help of Microscopes, there is nothing so small, as to escape our inquiry; hence there is a new visible World discovered to the understanding [...] By this the Earth it self, which lyes so neer us, under our feet, shews quite a new thing to us, and in every little particle of its matter; we now behold almost as great a variety of Creatures, as we were able before to reckon up in the whole Universe it self.

Robert Hooke, Dedication to *Micrographia*

The visible world expanded, and the audience with it. If the visible can be magnified with tools, then anyone can garner mastery. Viewing becomes a different kind of privilege. The continuing popularity of Hooke’s work with the microscope throughout the late seventeenth-century, in conjunction with Leeuwenhoek’s discoveries, was pervasive enough in the culture to merit poking fun through its most culturally visible mediums. Shadwell’s play is frequently cited as *the* dramatic connection between the scientific revolution and theater. The moment from Hooke’s diary places him watching himself magnified by the stage within a space of intense observation. But the satire is too simple to be read as an indicator of this cultural shift towards

the visible. Instead, it is useful in conversation with *Man of Mode*, to remind us how sophisticated the audience was regarding science of the time and how deeply the new kind of observation had saturated the culture. Etherege's play offers of a picture of the contemporary culture as "the least of all visible things."¹¹¹ It is a commentary that simultaneously gives and removes authority. The magnified world of the fashionable is, much like Hooke's needle or silk, shown to be coarse. The imprimatur of the King brought microscopy and the theater into cultural discourse. Reading that intersection allows us to see how the omniscient gaze of the King would be eroded by the very tools he endorsed.

In that cultural gaze is the tension between spaces, what is seen and by whom and where. The discourse of seeing is linked to power—in much the same way Robert Hooke identifies in his dedication to King Charles. Mechanisms like the Royal Society, the theaters, are constructed so that, deliberately or not, the King may rule over "the best of all *Invisible things*," and the most in need of control, "the *Minds* of Men." The ability to closely and accurately read is an equalizing power, dangerous to those seeking to maintain their position of authority within a culture. It requires regulating ever more precise distinctions of the visual faculty. Fopling calls for regulation of the space revealing a tendency and desire within the culture towards regulated and proscribed space. Regulated space is controlled space—supposedly safe, but for whom? And who is watching whom? The saturation throughout the culture of a desire to see in detail, to illuminate previously mysterious areas of life, to simultaneously discover and regulate fundamentally affects how the English interact with the world, with their government, with themselves. This popularity of microscopy within the culture, manifest through Etherege's play uses visibility to speak of power. The critique of libertinism within Charles court is present, but

¹¹¹ Hooke, Dedication to *Micrographia*.

through magnification it is a critique of Charles, of monarchy, of the culture of power. Close examination of what we believe to be real shows the true nature of things—whereby the ugly becomes beautiful and the seemingly beautiful, abhorrent.

In II.i Lady Townley relays that “Mr. Dorimont swears a flea or a maggot is not made more monstrous by a magnifying glass than a story is by [Medley’s] telling it.”¹¹² Gossip is condemned and upheld in a sweep that acknowledges Hooke’s flea. Gossip, the visible, the fashionable are all contained in a reciprocating pattern between transmission and reception. As with Hooke’s “book of the microscope,” the object of study and the audience observing are reduced in importance while the transaction between them is magnified.¹¹³

In the next chapter, I turn to the nineteenth-century to both continue the conversation about the dialectical shaping between theater and technology and to show how the action of looking changes with the introduction of the steam engine, the railway system and the advent of motion pictures.

¹¹² Ibid, 104.

¹¹³ Latham, 2.

Chapter Two: An Inventor, an Actress and Two Train Robberies: The Mobile Act of
Looking in the Late Nineteenth-century

We looked like conspirators. The dark night, the two mysterious carriages, the silence imposed by the freezing cold, us, all muffled up in furs and throwing worried looks here and there—all of this gave our visit to the great Edison the atmosphere of a scene from an operetta.

Sarah Bernhardt¹

On a winter night in 1880, actress Sarah Bernhardt boarded a train to Thomas Edison's Menlo Park, New Jersey laboratory, to "see the light."² Bernhardt's florid prose contrasts sharply to Edison's recollection of the meeting, twenty years later. In a terse paragraph of eight lines, he reduces the event to an hour and a half spent with someone who "jumped all over the machinery" and then sent him two paintings from Paris.³ The meeting between Bernhardt and Edison, rather than just a publicity stunt or historical footnote, functions as a cultural nexus where the dominant technologies of the period coalesce around the act of looking to point towards something wholly new. The conflicting narratives of the event serve to highlight the act of looking in the meeting. The technologies that make this meeting possible—the railways, the spectacular melodrama, the combination company—are the grounds for the fact that Edison and Bernhardt can come together in the first place. But the meeting itself is a tool, a device we can use to observe how the act of looking was being reshaped in the last two decades of the nineteenth-century to become

¹ Bernhardt, Sarah. *My Double Life: The Memoirs of Sarah Bernhardt*. Trans. Victoria Tietze Larson Albany: State University of New York Press, 1999. Print. 263-5. Future references to Bernhardt's personal recollections of the meeting come from this text.

² Israel, Paul. *Edison: A Life of Invention*. New York: Wiley, 1998. Print. 154.

³ Dyer, Frank Lewis, and Thomas Commerford Martin. *Edison: His Life and Inventions* (Volume Two). The Minerva Group, Inc., 2001. Print. 743.

the mobile look of twentieth-century film. This meeting is not purely theatrical or filmic, old technology or new, but rather something in between that points both forward and back.

Thomas Alva Edison had risen to fame with his 1877 invention of the phonograph. Called the “Wizard of Menlo Park,” he was a man whose 1880 laboratory appeared poised to change the world, again, with electric light.⁴ Famous for his inventions, yet ambivalent about popular culture, Edison was ready to take advantage of meeting anyone—including an actress like Bernhardt—“to broadcast the message that the Edison light was finally ready” for municipal installation in New York City.⁵ Sarah Bernhardt was both a formidable talent and a notorious woman who had a formidable talent at remaining notorious. It was her first American tour and Bernhardt was at the height of her powers, relentlessly pursuing everything that reinforced her status as a celebrity. In a meeting designed to capitalize on their mutual notoriety, the novelty of their professional disparity only added interest. Plus, it was convenient: Bernhardt and her entourage traveled via the railways, an easy means to reach Edison at Menlo Park.

The well-established railway system of the nineteenth-century allowed Edison and Bernhardt to meet and bask in the reflection of one another’s fame. The railroads and steam driven mechanisms that spread across the landscape of the nineteenth-century both moved people

⁴ Stross, Randall E. *The Wizard of Menlo Park: How Thomas Edison Invented the Modern World*. Reprint edition. New York: Broadway Books, 2008. Print.

⁵ Freidel, Robert and Paul B. Israel. *Edison’s Electric Light: The Art of Invention*. JHU Press, 2010. Print. 154. It is worth clarifying that Edison was but one actor in the race for large scale electrification. He was not the sole inventor of the electric light bulb but rather the developer of one type of incandescent light bulb that refined the work of inventors like Alessandro Volta, Humphrey Davy and Joseph Swan. Edison’s work on the Pearl Street Municipal project was the very beginning of what would come to be known as the “War of the Currents.” This protracted publicity battle between Westinghouse Electric Company’s alternating current (AC) and the Edison Electric Company’s direct current (DC) supposedly centered on both the relative safety and efficacy of either method of electrical transmission but functioned as a means for each company to attempt to control and profit from the municipal infrastructure. Westinghouse backed Nikola Tesla and Edison became the publicity figureheads for the battle, and the theatricality of their public debates is material for another study.

physically and changed their socioeconomic circumstances; their situation in place and culture irrevocably altered. Rail travel was a mechanism that shaped the act of looking through speed while unsettling notions of identity. In describing cultural objects as either register or influence the act of the looking within the nineteenth-century there a number of worthy contenders that come to the fore, but two outstrip all others in terms of documentation and general agreement: the steam-driven railways and the theatrical form of melodrama.

In this chapter I will consider how the technology of the railways shaped the act of looking throughout the nineteenth-century. The steam driven locomotive introduced the combined effects of amplification and automation through the railway system, shaping both culture and landscape of the period. These qualities were registered dramaturgically in the touring spectacular melodramas that informed the earliest narrative film making. Tracing this effect via the connected cultural products of popular melodrama and early motion pictures shows how the railway is a technology shaping the act of looking. To proceed with this argument, I analyze Scott Marble's 1896 play *The Great Train Robbery* in comparison to the 1903 Edwin S. Porter film of the same title to show the metaphoric transfer of mechanical power from the engine of the stage to the motion picture camera, describing the shift in the act of looking. The act of looking becomes a mobile look, defined by both containment and speed.

The seeming mediocre publicity stunt of Bernhardt and Edison occurs at the charged moment just prior to the advent of motion pictures, conflating celebrity and technology as it stages the seismic change in the way people would view the forces of narrative, scientific exploration and production in the coming century. Edison, the inventor, and Bernhardt, the actress, were identified with specific roles or inventions—*his* phonograph; *her* *La Dame Aux Camellias*. Their celebrity, as Joseph Roach writes, “construct[ed] itself in the imaginative space

inspired by the performer but ratified and amplified by the audience.”⁶ Bernhardt’s visit associated her with the world of technology and Edison, the three then mutually “ratified and amplified” by the public. Edison’s press performance promoted his inventions as technologies that appealed to sophisticated, forward-thinking consumers that appreciated lifestyle changes while simultaneously popularizing them by association with the famous. But his search for publicity, verification, witnessing reveals the always underlying anxieties about a nascent technology. His willingness to use a woman who had mastered the art of shaping the act of looking within the theater demonstrates the international capacity of name recognition. The meeting is framed and driven by a complex of technologies—social, artistic and scientific—that shaped the act of looking throughout the nineteenth-century, while laying the ground for the oncoming visual world of the twentieth.

Writing more than one hundred years after the development of the railroads, well after the meeting between Bernhardt and Edison, Michel de Certeau offers that traveling by rail “combines dreams with technology” creating “these places of laziness and thoughtfulness” as a way that the technology of the train affects an eye viewing from a train and in the process, describes a new kind of spectator.⁷ Railway travel reduces the passenger to physical laziness as one is able to sit while still moving but moving faster than any other conveyance might travel. Where bodily engagement is contracted, mental engagement expands. The nineteenth-century traveler exchanged physical exertion for mental with the “a dispossession of the hand in favor of the greater trajectory of the eye.”⁸ As the train divides, it connects. People come together, but the

⁶ Roach, Joseph. “It.” *Theater Journal*. 56.4. (2004): 560.

⁷ de Certeau, Michel. *The Practice of Everyday Life*. University of California Press, 2011. Print. 113.

⁸ *Ibid*, 112.

landscape is separated, and people separated from the landscape because they “no longer obey hierarchies of dogmatic orders; they are organized by the grid work of technocratic discipline.”⁹ de Certeau further unites the theatricality and machinery, offering that “[a]s invisible as all theatrical machinery, the locomotive organizes from afar all the echoes of its work.”¹⁰ de Certeau describes the world of 1880 where the machine’s influence dominates.

Historians of technology Brooke Hindle and Steven D. Lubar write that “more than any other new machine, the locomotive symbolized the Industrial Revolution.”¹¹ That symbol is part of the more broadly construed technology of the railway—which includes the locomotive, the tracks, the timetables, or even the battles for the precedence of one rail width over another. But it is the overwhelming speed of this industry seems to define the western nineteenth-century—whether the speed of travel, the increase in movement around the world, or the rapidity of the laying of track throughout the world. You do not go far within the century without running into a train or its ancillary components. By mid-century, the world appears to be a result of the railways, rather than the other way around. It is both a technology and cultural discourse shaping the nineteenth-century.

And yet, as Wolfgang Schivelbusch reminds us, “[e]very history of the nineteenth-century presents [the steam engine] as the central character—a kind of technological Napoleon—in the epic of early industrialization.”¹² Art historian Rebecca Solnit expands on this in *River of*

⁹ Ibid, 113.

¹⁰ Ibid.

¹¹ Hindle, Brooke, and Steven D. Lubar. *Engines of Change: The American Industrial Revolution, 1790-1860*. Smithsonian Institution Press, 1986. Print. 125.

¹² Schivelbusch, Wolfgang. *The Railway Journey: The Industrialization of Time and Space in the 19th Century*. University of California Press, 1986. Print. xix.

Shadows, offering that “[t]he Industrial Revolution preceded railroads, but railroads magnified its effect and possibilities unfathomably and these roaring, puffing machines came to seem that revolution incarnate.”¹³ In his landmark 1979 cultural analysis, *The Railway Journey: The Industrialization of Time and Space in the Nineteenth-century*, Schivelbusch reinforces this premise by making a case for cultural transformation driven by the technological dominance of the steam locomotive and railway system. Just as the jacquard loom made it possible to conceptualize the modern computer, it is a far smaller technological advancement that drives the advancements of the Industrial Revolution. Schivelbusch himself recognizes this in the 2014 preface to his text. He asserts “the more important point of the invention preceding [the steam driven piston moving a circular drive wheel]” was the piston and cylinder itself.¹⁴ This technology to create and sustain the oscillating movement of an engine “became humankind’s first artificially produced mechanical movement.”¹⁵ Schivelbusch revisits his assumption and redirects our attention to a smaller component of the whole, identifying that as the means to transform. Akin to the narrow act of looking I examine here, it is not about the results of the piston and cylinder or where the gaze is directed, but the story is really about how that action came to effect change. The steam driven piston and cylinder mechanism while not a direct means of affecting the act of looking nonetheless provides a means to shape and direct how individuals look.

¹³ Solnit, Rebecca. *River of Shadows: Eadweard Muybridge and the Technological Wild West*. Penguin, 2004. Print.10.

¹⁴ Schivelbusch, Ibid.

¹⁵ Ibid.

In 1844 writer Nathaniel Hawthorne described the psychological effect of “the whistle of the locomotive,” saying that it “tells the story of busy men,..men of business; in short of all unquietness...since it brings the noisy world into the midst of our slumberous peace.”¹⁶

Hawthorne paints a disingenuous pastoral vision, but he does articulate that the world has grown overwhelming to the senses. The world had changed within a generation from an agricultural village environment to an industrial city. There was more to see, there was more that must be seen in order to survive. This was a world trading the trajectory of the ear for the eye; in a noisy world, the spectacular was visible.

Railway Technology and the Act of Looking

In 1802 Thomas Jefferson observed that “[t]he introduction of so powerful an agent as steam to a carriage on wheels will make a great change in the situation of man.”¹⁷ A year later, he completed the Louisiana Purchase, doubling the size of the United States. The full effects of westward expansion would not be fully realized until 1869 when the golden spike was driven in Utah, linking the transcontinental railroad. Only thirty-nine years after the world’s first passenger railway, the United States linked its coasts at a time when much of what would become the western half of the country were still barely mapped territories. These railroad tracks are a single indicator of the spread of the technology but serve to highlight the speed of adoption and implementation of steam driven railroad technology. In England alone there were an estimated total of ninety-eight rail miles in 1830. By 1860: 10,433 miles—with the total number of rail miles roughly doubling every five years throughout the nineteenth-century. Yet, nineteenth-

¹⁶ Hindle, Brooke, and Steven D. Lubar. *Engines of Change: The American Industrial Revolution, 1790-1860*. Smithsonian Institution Press, 1986. Print. 125.

¹⁷ Ambrose, Stephen E. *Undaunted Courage: Meriwether Lewis, Thomas Jefferson, and the Opening of the American West*. Simon and Schuster, 1996. Print. 53.

century railway technology is a complex system that includes both mechanical technologies of the lines and the steam driven locomotives running on them, as well as the socio-cultural technologies of private or governmental organizations overseeing the whole. The systems that developed and administrated over the railways of the nineteenth-century shape the act of looking but are a result of the mechanical technology. They shape the act of looking, rather than fundamentally transforming it the way that the mechanical technology does. The application of a steam driven engine to iron railways was the transformative mechanical technology that changed the nineteenth-century act of looking. The railroads and steam driven mechanisms that spread across the landscape of the nineteenth-century both moved people physically and changed their socioeconomic circumstances, their situation in place and culture irrevocably altered.

The steam driven piston and cylinder engine's seeming miraculous achievement is the transformation of heat energy into mechanical energy. The mechanism is deceptively simple. The engineering of steam engines has been known since the first century A.D. when Hero of Alexandria described his *aeolipile*.¹⁸ A steam engine of this type relies on the movements of a shaft—or piston—fitted to snugly insert and draw back through a tube—or cylinder—molded inside the engine block. A shaft attached to the end of the piston and connected to a flywheel provides the means of transferring the back and forth motion of the piston into motion, thus powering the engine as a whole. Provided that the heat energy the engine harnesses remains steady, the engine has infinite capacity. The transformative qualities of the piston and cylinder engine lie in its ability to amplify and automate the action of whatever the engine is attached to.

¹⁸ The term given to the simple steam driven turbine described in *The Pneumatics of Hero of Alexandria*. It is described as a copper ball that pivots on tubing above a sealed container or water. The water is heated, causing steam to move into the ball. The ball is equipped with two small bent tubes in the shape of an L, opposite one another on the surface of the ball. As the steam evacuates the ball, the venting provides the force necessary to cause the ball to spin on its pivot. There is no evidence that the mechanics of this device were put to any use beyond novelty.

Amplification often meant increased duration and strength. Transferring lift, push or pull energies over to an engine harnessed the seemingly unlimited capacities of the engine.

Mechanized movements sped up, became regular or predictable. Amplification and automation create a new set of concerns regarding control and management of a new surplus of energy—in whatever form.

Once the piston and cylinder relationship is stabilized, the durational capacity of the engine is less significant than the element of automation that Schivelbusch so clearly identifies above. Prior to Newcomen's developments or Watt's additions, the speed of life was dictated by the natural world.¹⁹ The flow of water, the speed of a horse or oxen, the strength of a man were elements that were harnessed but could never exceed their capacities. A horse was never going to be faster or stronger than the fastest or strongest horse. A horse—or man, or even a river—required tending and maintenance and were susceptible to the happenstance of the natural world. The engine was none of these things. Given a sufficient and consistent supply of fuel, the engine would keep producing energy, at a higher rate of speed for a longer span of time than could previously be achieved by any means. An engine does not depend on the health, mood or availability of the natural world. It simply works, making the act of automation transformative in and of itself.

What was being automated and amplified was the movement of goods and people through space. The concept of moving freight via rails was not a new concept in the nineteenth-century. Wagon ways, or grooves in a roadway that allowed a wagon to be drawn along a set track, date back to ancient Greece and were in use throughout Europe from the 1500s into the

¹⁹ Thomas Newcomen (1664-1729) was the inventor of the Newcomen steam engine—the first practical steam engine for pumping water. Developed around 1712, it produced subsequent rapid development of the steam engine used in the first railways. James Watt (1736-1819) improved on the Newcomen engine by developing a condenser, improving the piston and cylinder efficiency.

nineteenth-century. These railways were animal or human powered, designed to transport loads short distances. In 1814 George Stephenson built a steam powered machine to improve on the durational capacity and speed of this type of transport that proved pivotal in the development of the steam locomotive. In 1825 he built the Stockton and Darlington Railway, the first public (open to other coal producers) steam railway in the world. A young American engineer, Horatio Allen, writing in 1828 of his experience with the Stockton and Darlington railway, describes these engines as traveling between five and seven miles per hour, “as great a speed as I think prudent to move at when loaded.”²⁰ If a contemporary marathon runner can travel at a speed of five to seven miles per hour, then passengers on the Stockton and Darlington were certainly going faster than walking, but not by much. Even a mail coach of the nineteenth-century could only realistically manage ten miles per hour—a slight increase in speed over the first steam trains. That slight gain was achieved by sacrificing the comfort of the passengers and changing horses more frequently due to exhaustion. The apparent evenness and predictability of steam driven rail technology, however, combined with the displaced effort of the train passenger increases the passenger’s sense of speed. Allen concludes that “[u]pon the whole the subject [of railroads] appears to be quite as popular here as with us.”²¹ Popular enough that in 1830 the Liverpool and Manchester Railway opened as the first recognizably modern railroad. The L&M transported passengers—attracted by the novelty and speed—along with cargo on scheduled, time-tabled, steam locomotives. Only thirty-five miles and linking two small towns in a shire county, the L&M influenced the development of commercial public railways around the world.

²⁰Carter, Charles Frederick. *When Railroads Were New*. H. Holt, 1910. Print. 12-17.

²¹Ibid, 19.

Amplifying the movement of people through space results in a new way of looking. The visceral experience of those early railways is described by D.K. Minor, editor of the *American Railroad Journal*, reporting on a trip he undertook in 1832. He offers that “it is scarcely possible for those who have not had an opportunity to participate in the pleasure of an excursion upon a railroad to imagine the delightful sensation which is produced” because “[t]he passenger is scarcely aware of movement except by the rapidity with which he passes objects.”²² The act of looking is connected to the measurement of speed via the new technology of the railway. But for all of Minor and Allen’s enthusiasm, there is a nearly equal vein of trepidation. A newspaper account regarding a trip over the summit of the Allegheny Mountains, captures the mixed reactions of the passengers after seeming “to swim along the mountainside.”²³ “Many of our party were in an ecstasy of delight and enjoyment; but others, more fearful, walked the crooked way, while some who remained on the cars trembled like the aspen leaf.”²⁴ The speed of the movement affects the visual register of reality. But the distancing effect of automation un-moors the passengers from the supposed accuracy of vision. As de Certeau has described above the disorienting experience of being on a train—where individual stillness meets visual mobility and the eye becomes the site for a far more profound automation—the act of looking has become amplified and automated via the engine of the train. A small thrust of a piston is magnified into the power to drive a locomotive. The same forces drive the dramaturgical engine of nineteenth-century spectacular melodrama that, in turn, forms the ground for narrative film. Systems of

²²Ibid, 31.

²³Ibid, 65.

²⁴Ibid.

automation and amplification transform the act of looking for a railway passenger of the era as they simultaneously shape production and reception within the theater of the nineteenth-century.

Theatrical Machinery: Theater and the Railways

The act of looking in the late nineteenth-century is materialized in the symbiotic relationship that develops between popular theater and the railways. The practical role of the railways in circulating theater appears straightforward, but it is de Certeau's "organized echo" of the railway system that highlights the shifting act of looking as manifest in the popular theatrical representation of the period. The dominant theatrical form of the nineteenth-century was melodrama. As both a genre and form of representation, melodrama's identity shifts over the course of the century. What began as music dramas of the late eighteenth-century, the melodrama's popularity was rooted in accessibility. This accessibility is emphasized by the specific form of the spectacular melodrama: a plot driven scenario that drew on theatrical magic to recreate naval battles, horse races, and even railway accidents onstage. Above all, these plays are meant to be seen, not read—there are no closet dramas of the melodramatic form. This form, as both a dramatic genre and theatrical technology, demonstrates how performance shapes and is shaped by the Industrial Revolution.

While the railways were a literal piece of the theatrical machinery of the late nineteenth-century in the United States, they were a technology still visible to the population. Their presumed invisibility as a theatrical mechanism highlights their visibility within the culture. The railways brought material to the people as well as transporting the audience around the country. The railways and trains were theatrical machinery that every audience member knew as well as any actor understood canvas drops and stage properties. That the railway and locomotive would

become subjects, or even actors, within the melodrama speaks to how embedded this technology became within the culture.

The growth of touring “combination” companies and the attendant industries designed to support them in concert with the style of spectacular melodrama performed by the companies argues for what theater and early film historian David Mayer calls “a mobile theater” of the late nineteenth-century United States.²⁵ In this mobile theater, the railways shaped the presentation and subsequent reception of material changing the act of looking into one that emphasized movement. The advent of the combination company in the late nineteenth-century unite the railways with melodrama.

With the national market crash of 1873, stock and repertory companies folded across the country leaving theaters facing bankruptcy as local economies suffered.²⁶ Mayer observes that “[i]n the face of these grim developments, the railway companies, themselves affected by the depression and seeking fresh business, offered theatrical entrepreneurs a lifeline: an extension of the ‘combination’ system with favorable rates and appealing schedules for traveling theater companies.”²⁷ Between 1876 and 1900, the number of touring companies—designed to travel the railways—jumped from one hundred to as many as five hundred.²⁸ These companies dominated theatrical production across the United States. The system of traveling companies moved lead

²⁵ Mayer, David. *Stagestruck Filmmaker: D. W. Griffith and the American Theatre*. University of Iowa Press, 2009. Print. 32. Prof. Mayer’s work in this field is invaluable. Here he writes on the development of the combination company and describes the theatrical background and influences on Griffith’s films. In so doing, he constructs an aesthetic evolution from stage to screen.

²⁶ *Ibid*, 37.

²⁷ *Ibid*.

²⁸ Rahill, Frank. *The World of Melodrama*. Philadelphia: University of Pennsylvania Press, 1967. 179.

actors, sets and costumes from town to town to perform a play constructed with deliberate spaces to include local supernumeraries and specialty acts. “[B]ecause of the transportation network of railroad companies, the principal theatrical economy was widely dispersed, away from New York and, to some degree, from East Coast metropolises. The overall reception and subsequent earnings of a drama—and, indeed, the physical conformation of many popular pieces—were strongly determined by considerations of the road.”²⁹

The extent to which combination companies dominated popular performance can be seen in the Julius Cahn railway guide, published between 1896 and 1910.³⁰ It is a guide for theater managers and company managers, detailing the specifications necessary for any traveling company. Not only are the various performance venues in a given city listed, but such helpful addenda as average population in a city, convenient lodgings, and average ticket pricing at various venues. Within the guides, advertisements for rail lines are juxtaposed against those for theatrical seating and costume houses. In the style of the period, the ads rely on text rather than images, detailing the seemingly modest merits of any given good or service. The guide details theaters across the United States, with an emphasis on the more established east coast and eastern railway lines. Not merely an artifact of a plausible commercial venture, Cahn’s guides serve as evidence of the inextricable ties between the rail system and the theater of this period. This was a professional tool, designed to serve the needs of theatrical managers and the burgeoning profession of theatrical agents—Edward Jarrett the man responsible for booking Sarah

²⁹ Ibid, 32.

³⁰ Cahn, Julius. *Julius Cahn’s Official Theatrical Guide*. New York: Publication Office, Julius Cahn, 1896. Web. Nov. 2015. My thanks to the work and guidance of Prof. David Mayer, who first directed me to these guides as a resource.

Bernhardt's tour was one of them. But the only way to engage with the resources within is to travel via the railways.

The systematization represented by the guides, overlaid with the implied necessity of the use of the railways, speaks to the twin forces of automation and amplification. The productive potential of the theater was expanded from the local to the national via the mechanization of the rails. A text that codifies and reduces the details of a city's performing arts venues simultaneously broadens and limits. It reduces the information of the spaces and places to its measurable components, allowing outside forces to move through the spaces with ease. Because of that ease, the number of performance events can increase, rapidly, amplifying the interaction with a national discourse.

Interestingly, this national discourse was not necessarily centralized in New York or Boston. Instead, some of the most successful combination companies ran out of the Midwest. Rather than a kind of performative westward expansion, companies moved in all directions, capitalizing on the linking of rail routes that connected previously disparate and isolated communities. As the form of popular performance automated itself to suit the mechanical availability of the time, the mechanical movement across time and space amplified and unified the culture of the United States. Mimicking the peculiar and familiar experience of a train passenger, a local audience could watch from a seeming stable position as the theater came to them, while the companies, always moving were stable in their own position of looking on a constantly shifting audience. Both parties experiencing the act of looking as apparent, rather than lived, movement.

The genre of theater that was overwhelmingly served by the Cahn guides was the melodrama. In particular, the spectacular melodramas of combination companies traveling the

country via the railway system. As the United Kingdom drove the Industrial Revolution, its cultural products continued to define the growing United States. In the United States, specifically in the post-Civil War period, the established railway systems provided a means to transport productions and companies both to and from a variety of theatrical centers, in addition to exporting material from New York.

By the end of the nineteenth-century, during the 1880 meeting of Thomas Edison and Sarah Bernhardt, the style of melodrama known as the 10-20-30 was performed widely via the railways spreading across the United States. 10-20-30 referred to the different prices charged for the audience. Their relatively, low cost became an qualitative association, implying that anything on the 10-20-30 circuit or of that rank would be merely the most sensationalist of fare.

On the whole the form of spectacular melodrama is dependent on visual novelty and excitement. Whether achieved by setting or plot points, melodrama emphasizes both newness and looking, as it is dependent on both. Music operates together with the visual, designed to highlight the action and underscore the plot. No matter the genre, the form overall depended on key structural and aesthetic elements such as the use of stock, archetypal characters. The overall characterization was thin. Melodramas of the early nineteenth-century tended towards exotic locales with that plots turned on sensationalism, wit and the use of local color—attention to detail reinforcing the sense of close observation. The resolution of the plots turned on spectacular scenes of near death. Melodrama, as an umbrella term, evolved in style over the course of the century. Towards the end of the nineteenth-century there was a rise in popularity of the “gentlemanly” melodrama—one that is more domestic in tone and less dependent on truly exotic

locales and situations.³¹ Whereas the spectacle of melodrama had been an embellishment onto the action, the move was towards the spectacle being the realism of the *mise-en-scène*.

The melodrama in France takes a slightly different turn, affecting performers like Bernhardt. The highly codified nature of the state theaters helped spawn the boulevard performance tradition. Ostensibly more popular, slightly more intimate and experimental (by the standards of the state run houses), the boulevard theaters fused Romanticism and the Well-Made Play into something tragic, but not classical. Sarah Bernhardt began in *Comédie-Française*, but returned to the stage via the *Odéon*—a boulevard theater. The best of the classical training and the best of the boulevard emotional spectacle come together in her work, further shaping the form as a whole. She is a woman to be looked at, a woman who generates her notoriety through

³¹Allardyce Nicoll's dated, but thorough, *A History of Early Nineteenth Century Drama*, offers that "[r]oughly, the melodramas of the period may be classed in three main divisions: the romantic, the supernatural and the domestic; and we may consider this dramatic form as a whole to have developed chronologically from one division to another in the order which is given above." (100) For Nicoll, the domestic melodrama was simply a variation on the Romantic spectacularism of the early century, even as its locations, plots and modes of theatrical representation shifted to align more closely with Realism. This evolution is seen in the work of some of the leading playwrights of the form: August von Kotzenbue (1761-1819), René Charles Guilbert de Pixérécourt (1773-1844), Dion Boucicault (1820-1890) and, T.W. Robertson (1829-1871). The plays of von Kotzenbue were domestic in setting, with plots hinging on spectacular or sensational incidents while the titles of de Pixérécourt's reveal the type of hyperbolic sentiment Nicoll disdained. Plays like *Les Ruines de Babylone* (The Ruins of Babylon), *Le Chien de Montargis* (The Dog of Montargis) or *Le Monastère abandonné ou la Malédiction paternelle* (The Abandoned Monastery, or the Paternal Curse) were translated and circulated in adaptation on the English stage, shaping public taste. The mid-century work of Boucicault, while still dependent on the spectacular (*The Corsican Brothers*) was moving towards not merely domestic settings, but questions of social mobility, marriage and the adventures of home life (*The Octaroon*). George S. Aiken's production of the popular *Uncle Tom's Cabin* is a model of this, combining both the qualities of the spectacular with scenes of domestic dramatic action. On the English stage, this move towards the domestic is perhaps fully realized in the work of Robertson, writing for the Bancroft's newly renovated Prince of Wales Theater in 1865. Designed to appeal to the newly emerging middle-class of London, the Bancroft's theater space and Robertson's plays—*Ours* (1866), *Society*, (1867), *Caste* (1867)—were "cup and saucer realism," where the novelty of real objects became the spectacle. William Tydeman, editor of *Plays by Tom Robertson* (Cambridge, U.K.: Cambridge UP, 1982. 13) writes that in concert with staging that "exhibited a kind of accuracy to life," the plot and characterizations led the spectator to a sense that they were witnessing "faithfully recorded events" from "ordinary life."

her visibility, a woman whose presence is reinforced by the roles she makes famous: Camille, Theodora, and Froufrou.

The components of all the western melodramatic forms popular and available in the late nineteenth-century converge in work like Scott Marble's *The Great Train Robbery*. In works like Marble's we are able to view how the mobile theater shapes the act of looking through dramaturgical amplification and automation.

"See This?": Scott Marble's *The Great Train Robbery* of 1895(6)

With a plot and cast of characters as convoluted as any English Restoration comedy, Scott Marble's 1896 melodrama, *The Great Train Robbery*, is cited as the source material for Edwin S. Porter's 1904 film of the same name. The pieces have share a title and involve the robbery of a train but this is where the similarities begin and end. "Its subject is similar to numerous railroad-crime melodramas which circulated along provincial circuits through the 1890s."³² At best, this is one of the many plays that inspired the film that is recognized as the birth of American narrative cinema. Rather than viewing this sprawling melodrama as a clean migration from one medium to another it is more useful to examine the reciprocating influence of the two in order to reveal how the forces of amplification and automation shape the act of looking.

Historian David Mayer, writing on the possible influences of Griffith's film work asserts that Marble's "successful stage drama" made into an equally successful film is a means to read the connections between late nineteenth-century stage practice and early film in Griffith's directing style. He describes Marble as "proficient in generating numerous commercially successful melodramas, comedies, and [the] occasional musical drama" yet he "remained

³² Ibid, 34.

unknown and unheralded” in his time.³³ Playwright Scott Marble (1845-1919) produced work popular on the traveling circuits documented in the Cahn guides. Plays like *Exiles of Siberia*, *My Wife’s Husband*, *Miss Plaster of Paris* and *Sidewalks of New York* ranged from the domestic, character driven drama to the spectacular, effects driven type. “Never a name to draw investors or audiences” his skill at “contriving visual sensations for the stage” allowed him to move from writing plays to creating film scenarios in 1910.³⁴ Marble’s *The Great Train Robbery* relies on tropes of the railway crime genre of the late nineteenth-century to provide the thrills that frame the plot while showing the structure of a play destined for a combination company.

The action of Marble’s play occurs over four acts. Given the large cast—seventeen characters with significant speaking roles plus supernumeraries—the main storyline instead provides an opportunity for all of the secondary events to occur. There are four sets of lovers (two comic and two serious), two love triangles, a knife fight, a shootout, a train robbery and an attack by a bear. The action of the play centers on the honest Tom Gordon, a cashier for the Wells Fargo Express Co. who is in love with his supervisor’s daughter, Alice, and plans to marry her on a trip out to San Francisco. Gordon is presented as the upstanding opposite to Carter, a wily telegraph operator, also in love with Alice. Carter is jealous and driven to obsession over Alice when it is revealed by his companion Hollis that Gordon has usurped him in Alice’s affections. Carter and Hollis, by eavesdropping on a conversation between Gordon and his supervisor, William Bennett, hatch a complex scheme to be caught substituting the gold for lead in order to pin the blame on Gordon and disgrace him. Once the scheme is discovered, Bennett fires Gordon, Carter and Hollis and setting the stage for the action of the rest of the play.

³³ Ibid.

³⁴ Ibid.

The now disgraced Gordon has left Kansas City for the frontier, disguised as a faro dealer named “Doc Holliday.” With his mustache and new name, he infiltrates the Never Shut Saloon, run by the loveable scoundrel, Broncho Joe. This is the new base of operations for Carter and Hollis who are intent on robbing the actual gold shipment and escaping to Mexico with the assistance of a group of Indians. Gordon is determined to thwart the robbery and clear his name in order to marry Alice. To achieve this, Gordon allows his sister Louise, who arrives disguised as a boy, “Frank,” to provide support, he reveals the truth of his situation to Broncho Joe and draws on the love of a local woman, Rose, to act as a spy and to gather information about Carter and Hollis’ plans. Insinuating himself into the periphery of the villain’s lives, Gordon is able to follow them and unravel escape plans. In the end, Gordon is exonerated, and Alice—having been kidnapped from the gold shipment train by Carter and Hollis—is rescued along with her father. Broncho Joe has survived broken ribs, a knife fight and a shoot out to exchange declarations of love with Gordon’s sister, Louise. Carter makes an attempt to run and is shot by the vagabond soldier, Solitaire, ending the play on a stage tableau of the united lovers.

This epic tale of love and adventure in the so-called “Old West” registers the cultural saturation of various technologies via their smooth incorporation as plot devices. Within a play titled *The Great Train Robbery* it is surprising that the emphasis is on the robbery rather than the train. But this is indicative of the role of technology within the plot. Both in the film and the play, the use of the great technological advances of the nineteenth-century, the steam locomotive and the telegraph, are tools to facilitate the human action. In the play, the inciting action of the plot occurs within and because of the technology of the telegraph office. The daily activities of that office are shown to be both mundane and opportunities for comedy via the trail of characters that come in. Those same mundane events provide the opportunity for jealousy, and the scheme to

sully the hero's name while showing how familiar this new technological environment was for the audience. There is a level of detail in the explanation of the scheme that points towards a complex understanding on the part of the viewer—they get the basic idea behind the technologies, but the play benefits from a bit of exposition to ensure the audience recognizes that the effects of technology play a significant role in the events of the plot. In this manner, all of the technologies represented within the text are a means to action, not the end. Rather than the play or the film being about the *train* it is about the robbery and its proximity to the train tells us something about how these technologies were registered by the dramatic forms.

For example, the role of the telegraph within both play and film reveal that the relationship to the technology was still irregular and construed as imperfectly reliable. Action begins within the telegraph office in both, providing both pieces with the means to incite the action of the plot. In the play, the telegraph is a tool used to incriminate Tom Gordon. Within the film, the telegraph is the means for the criminal gang to access the mail car they wish to rob. These railway associated telegraph offices are dangerous locales, marked as sites of potential violent action. Deliberate or not, technology is associated with danger.

Dramaturgical automation is seen in two aspects of the traveling formula. From the outside, the movement of the play around the country is a rigorously structured tour. Inside the play, the structure of the piece with gaps meant to be filled by local, contextualizing performers divorces the plot from the totality of the dramatic content. The plot functions as a technology into which individual components may be placed, but the play moves on, regardless.

The Great Train Robbery is an example of what had become standard combination company structure. The difficulty in condensing this looping and wide-ranging plot is indicative of this style of late nineteenth-century popular melodrama. Its primary element is action, both at

the level of the structure and content. The play spans five mimetically staged locations, referencing at least eight more in the diegetic space. The locations move from the relatively civilized world of Kansas City and the telegraph office outward, ending in a dugout in the Badlands of Red Rock. As the audience follows the hero and the criminals, they are taken to the very edges of the settled country, the very edges of morality, it would seem. That outward movement facilitates the events within the play, as well as underscoring the morality of the piece.

Inside the play, physical action sequences drive the events of the plot. Each scene is a set-up for a physicalization—whether that be eavesdropping, an impromptu wrestling match or a song and dance number. These physical events demand the view the audience, capturing the attention to a specific moment on the stage. The rhythmic, sequential occurrence of these creates a sense of a building momentum.

Act I of the play is as unlike the rest of the play as possible. Taking place in the confines of a Kansas City Wells Fargo Express office, the action appears designed to allow for maximum character player comedy crammed into a complex bait-and-switch-and-love's-revenge plot. Over the course of the Act the audience meets an irascible Irish soldier, a slow “Dutch” miner, a conniving black would-be porter and a wildly combative tenderfoot from Maine. Any one of those characters might provide enough comic action to fill a scene, but four of them create a cacophony of action. However the interactions of the main plot, between Gordon, Alice and Carter operate much more within domestic melodrama. The actions are conversations, betrayals and revelation rather than accents and broad physicalization.

The components of dramaturgical automation also function to dramaturgically amplify the effects of the spectacular melodrama and highlight the act of looking. Insertion of local talent pieces constructs an opportunity for close observation by the audience, highlighting their

personal relationship to the material. The location of these local variety acts within *The Great Train Robbery* is in the low ebb of Act II, while the chances for more dramatic roles occurring in Act III. These players would shift from town to town, highlighting the movement through time and space.

The action of the play highlights the act of looking by building on moments of disguise and revelation. From the revelation of both eavesdropping and the gold theft plot in Act I to the discovery of the hero disguised as an Indian in Act IV, the play's construction depends on a series of visually based shocks. One of the most elaborate visual reveals occurs in Act II, when Tom Gordon's sister, Louise, has had herself shipped in a crate to the Never-Shut Saloon. She is there to help her brother clear his name, but has arrived dressed as a boy and going by the name "Frank." She claims to be Frances Voshell, illegitimate son of the deceased Marshall that saloon owner and former horse-thief Bronco Joe had befriended. In the scene, a large crate is delivered to the saloon, and when the packing nails are removed, Louise/Frank pops out with a bold "Well here I am."³⁵ Bronco Joe has been told to look for "a mark" on Frank's body, to verify his identity. That visual confirmation is only verified by Louise/Frank's assurance that her "arm has a scar from a burn."³⁶ Even though Carter—in his disguise—cautions Joe, the saloon keeper is vehement in his belief in the word of the new arrival. "Don't you interfere. Whether he is what he says or not, that cuts no ice with me. I like his face and he took a hard trip to reach me and I'm damned if I turn him loose in these hills to starve."³⁷ It's a peculiarly rich moment that

³⁵Marble, Scott and Strobridge & Co. Lith. *The Great Train Robbery* Written by Scott Marble. Photo, print, drawing. N.p., 1896. Act II, 24. All citations refer to a new transcription of this text and will hereafter be noted by Act and page. Struck or "XX" material is a faithful reproduction of the source text while the bracketed material [] indicates an attempt at translation for clarity.

³⁶ Ibid.

³⁷ Ibid.

highlights the act of looking. There is the theatrical shock and comic delight of a person being delivered—rather than the expected hog meat. Louise is disguised as Frank, but her transformation from one gender to another is illegible. It may have been staged in a manner that was obvious to the audience, delighting in the knowledge of what characters onstage do not know. Or, it could easily have been closer to a dramatic reveal. Carter’s comment on the reveal provides the best evidence to argue for a reveal where the audience was in on the joke. He claims to recognize the voice of “Frank,” certain he had heard it back in Kansas City. Given the reveal of Frank as Louise Gordon, his paranoia is justified. Either way, it is a shock that emphasizes the visual action of the play rather than the aural.

When Broncho Joe learns that “Frank” is, in fact, Louise—simultaneously not a male and not the child of the Marshall—he takes the news with great ease, offering “Well, hang me, if I don’t like yoXXXX.[you for it]”³⁸ Louise, once discovered, insists on Joe continuing the charade and asks him to refer to her as Frank. At no point in the play does she don female apparel—onstage she is registered as female-dressed-as-male. Her maleness is reinforced through her jocular, rough language and her scrappy behavior. But she is a woman, situated as Gordon’s sister and the love interest to Joe. For an audience, it is a combination of a breeches role to titillate and a comedy-action scenario to pull at the heartstrings. But it is her appearance throughout this text that indicates how the act of looking is an exercise in constant attention. The repetition of the tension within the characterization, through increasingly intimate and emotional interactions between Joe and Frank/Louise, re-inscribes and reinforces the doubled looking of the disguise. We are tracking both Louise as woman and Louise as Frank and take delicious delight in watching those onstage who do not know.

³⁸ Ibid, 28.

This act of looking is constructed within the dramaturgy, showing that the play encourages the audience to look at the looking. We are watching the look, tracking it as it becomes narrative. At that level, the act of looking is working at the speed of humanity—quickly, but irregularly. The near constant use of repetitive exposition throughout the text reminds us of the volatile performance environment of such a melodrama. Not a calm, darkened, respectful theater for a “blood and thunder” display like *The Great Train Robbery*, but one where the action onstage was competing for the audience’s attention. In this way, the structure of the spectacular melodrama reveals itself to be uniquely at the speed and acuity of human vision—attentive to contrast with binocular vision for relatively strong acuity. Which is to say that the structure of the play is built on clear moral delineations with enough action to engage the eye but not so much detail as to lose the audience.

The disguising that populates the text ranges from the complex, in Frank/Louise, to the ridiculous. Gordon, Carter and Hollis all appear in Act II in “cowboy” disguises, clearly laid out in the prompt script. For Carter and Hollis, “*both wearing short beards, flannel shirts short coats belts not vests felt hats. Characters to dress as above (not the Western dress of 20 years ago)*”³⁹ Gordon has “*Smooth face, short hair. Large felt hat. Long Prince Albert (black) White shirt. Turn down collar. Modern red tie. Belt. No vest. Watch fob.*”⁴⁰ While Carter and Hollis have acquired beards, Gordon appears to have lost his—the only explanation for both the stage direction and the ability of Carter to not recognize his nemesis. Carter highlights the change in Gordon when

³⁹ Ibid, 20.

⁴⁰ Ibid, 25.

he snarls “I don’t like your looks.”⁴¹ If the true identity of any of these characters is illegible to the audience, the lengthy exposition by Carter and Hollis recounting the events of the previous Act is sufficient to remind them.

Solitaire, the tramp soldier, is introduced in Act II as well. Described in the stage directions as the “Champion Liar of the World” it is unclear if Solitaire actually was a soldier for the Union or simply picked up uniform pieces along the way.⁴² His wild prevarications form a verbal disguise reminding the viewer of the fragility of the aural. He continually asks the listener to “see this,” referring to a set of medal-like badges on his jacket.⁴³ These he apparently “got” for a variety of meritorious acts within and around the army.⁴⁴ He is disheveled, unkempt, and proud but completely ignoble. Everyone of intelligence around him knows him to be a liar and a drunk, lazy and unreliable yet useful. Once he appears, he is employed within the plot consistently, finally appearing in the last moments of the play to fire the shot that kills Carter. The most visually and verbally unreliable character of the play does something verifiable as constructive to the plot. It is not simply verifiable to the characters of the play, but also witnessed by the audience, making Solitaire the most honored and honest person within the plot. All of the acclaim that he grabs at within the play is granted in his one act of heroism before the curtain falls.

⁴¹ Ibid, 26.

⁴² Ibid, “Cast of Characters.”

⁴³ Ibid, Act II.

⁴⁴ Ibid.

The multiple shadings of appearance and disguises highlight the fragility of the visual, while reinforcing the centrality and veracity of looking. These disguises serve as plot complications and visual delights that amplify and ratify one another. Highlighting the visual for the audience assumes that they will follow while forcing them to actively track the machinations. Even with the audience in such an active position, it is not a case where the act of looking has been automated. Melodrama like *The Great Train Robbery* is automated via plot structure, but the audience sets the speed of engagement. It is an engine, albeit a horse-driven one. The play is sprawling with every comic character and a range of micro-plots. But its action-packed unreality is part of its joy. It is deeply theatrical, relying on visual tricks and tropes to engage the collective audience. This theatricality is a communal event, a demonstration of a group looking.

Nothing more clearly marks *The Great Train Robbery* more than its action. As such, it is firmly in the nineteenth-century form of melodrama. Between physical activity manifest as multiple locations, elaborate plot lines and sub-plot lines and the reliance on disguise, dialogue becomes an opportunity for comedy or exposition and little else. Within the structure of the text, disguise becomes a primary characteristic of the plot, as well as one of its most durable actions throughout the play. The use of disguise precipitates even more events and actions within the play. The theatricality of the play, the elements that make it engaging in a live form, are the elements that are cast away in the film interpretation. There, the drive of the narrative is paramount, where visual delight and expansiveness cannot compete with visual accuracy in mimetic representation. Filmed reality trumps staged delight. Whereas on the stage, reality is barely an issue, at best, a nuisance explained away with a disguise.

The components of dramaturgical amplification and automation that shape the act of looking become some of the first elements to be cut in the film versions of these spectacular

melodramas. The eye of the camera and the supposed veracity of film replaces the plot technologies that emphasize the act of looking. Instead, the camera automates, and in so doing, amplifies.

Learning How to Look: Filmic Technology and the Discourse of Filmic Viewing

In the shift from the stage version of *The Great Train Robbery* to the filmed version, we move to a wholly new technology of dramatic representation and a new act of looking informed by both the stage and the railways. The Cahn guides materially overlap two modes of looking in the late nineteenth-century. In the later guides, specifications for movie houses—often theaters adapted for film presentation—began to make an appearance on the pages. The film industry’s rapid overtaking of the same entertainment ground serviced by the combination companies began the process of disconnecting certain types of theater from its intimate relationship with the railways. But the experience of the railway passenger became the subject position on which movies could capitalize. “Movies are about looking” claims filmmaker and critic Mark Cousins.⁴⁵ The movies—not modern art cinema—but the candy and popcorn, escapist movies whose ancestors are the nickelodeon peep-shows are not about finding, but searching. In all ways they shape the act of looking and assuage the longing for the glimpse into a private reality, yet never completely satisfy. Film theorist Christian Metz offers that “A film is difficult to explain because it is easy to understand. The image impresses itself on us, blocking everything that is not itself.”⁴⁶

⁴⁵“The Birth of Cinema.” Dir. Mark Cousins. *The Story of Film: An Odyssey*. HanWay Films, 2011. *Netflix*. Web. July 2015.

⁴⁶Metz, Christian. *Film Language: A Semiotics of the Cinema*. University of Chicago Press, 1974. Print. 69.

In the days of early film, the cameras, film and projectors were intimately connected as products of a single inventor, because there was no standardization of the technology. Edison developed the Kinetoscope with the intention of the device being the main selling point and the product of interest. Motion pictures begin as novelties that emphasize movement, not unlike Eadweard Muybridge's zoopraxiscope and motion studies. Built into Edison's name for the device are the two elements that defined it: *kine*- movement and *-scope*, a device for looking. But the novelty of movement is surprisingly brief and the audiences and filmmakers become engaged in determining what the people or objects on the screen are doing. The Lumière Brothers in France moved toward large scale projection, recognizing or anticipating that what was being projected that was of interest. Once Edison saw that the appeal of film was not the mechanism of delivery, but the subject, his work shifted to development of a superior projection system.

The system of motion picture filming and playback is a technology that manipulates space and time—not annihilating but inverting them to make them visible. The film camera captures the movement of objects through space and reconstructs them as the passage of time via a series of sequential images. It is not a creation of the illusion of motion but a story told between eye and brain to make sense of the movement. The myth, as film theorists Joseph and Barbara Anderson identify it, of the persistence of vision encourages “the concept of the passive viewer” as “the one upon whose sluggish retina (or brain) the images pile up, must be replaced by an enlightened understanding of how viewers actually interface with motion pictures.” Instead, they describe the viewer of a motion picture processing movement in “active meaning-seeking ways.”⁴⁷ Motion in a film is an illusion created by the technology of capture and playback, but it is an illusion based on manipulating the biology of the brain through the act of looking.

⁴⁷Anderson, Joseph, and Barbara Anderson. “The Myth of Persistence of Vision Revisited.” *Journal of Film and Video* 45.1 (1993): 3-12. Web. 12.

The discourse of filmic viewing is established quickly and based on the shared knowledge that what was being seen was real, but not physically present. The lack of spatio-temporal simultaneity toyed with the notions of visual accuracy and verification. What you can see with your own eyes is now deceptive. One of the Lumière brothers earliest film presentations produces one of the most persistent urban myths about the discourse of viewing at the birth of film: the naïve-nineteenth-century viewers react with terror to the new moving images. In January of 1896 they presented their approximately one minute film, *L'Arrivée d'un train en gare de La Ciotat* (*The Arrival of a Train at La Ciotat Station*). The film's single continuous shot, with the railway tracks in a strong diagonal from lower left to up center of the frame, is meant to record an everyday occurrence but with staging that dramatizes it via the camera. The engine moves directly toward the camera, eventually coming to a stop outside the frame, next to the imaginary left shoulder of the viewer. Indeed, the short film gives the effect of being a person standing on the platform, watching the arrival. It's a striking and vertiginous shot, but perhaps not terror-inducing. Film historian Martin Loiperdinger offers that early film audiences are "interpreted as being unable to distinguish between film image and reality" but that interpretation is "a striking example of the manipulative power allegedly inherent in cinema since its beginnings. It serves to illustrate cinema's inherent suggestive forces, elevated to basic principle."⁴⁸ Loiperdinger argues that the supposed reaction of the audience is the founding myth of cinema, maintained to shore up "the power of film over its spectators."⁴⁹ Yet another story that

⁴⁸Loiperdinger, Martin, and Bernd Elzer. "Lumiere's Arrival of the Train: Cinema's Founding Myth." *The Moving Image* 4.1 (2004): 89-118. Web. 92.

⁴⁹Ibid.

everyone knows, but is likely untrue—the story of the end of the nineteenth-century appears littered with them. As Rebecca Solnit reminds us, “we can never see as they did.”

Early in its life, cinema is established as commercial, a novelty with broad appeal and inclined to test the uncanny valley well before the term had even been conceptualized.⁵⁰ Part of the discourse established onscreen, perhaps based on the mythology surrounding the early Lumière presentations, and was based on the lowbrow country bumpkin seeing a film for the first time. Early films capitalized on this new thread of comedy, reinforcing the mythos of film’s power over vision. Yet, what I argue is these filmed incidents of challenge and discovery challenged audiences not to doubt the truth of looking, but taught them to look in a new way. Vision is still reliable—to an extent. But we must be cognizant that the process of acquiring information has shifted. It has sped up and machinery is introduced. The means of storytelling have changed.

The Lumière Brothers in France, working at the same time as Edison, shot similar subject matter but projected the images onto a large surface for paying customers. Looking at film went from a singular, personal experience to a group one. But what remained constant in the late nineteenth-century was that “[f]or the first audiences the novelty of movement on the screen was enough in itself.”⁵¹ At the same time, nickelodeons were developing as locations to show films exclusively. More like conventional live theaters in design, they were cheap their offerings were plentiful. An advertisement from one assures the viewers of “up to date events of international

⁵⁰ The uncanny valley is a hypothesis posited by robotics professor Masahiro Mori. Mori posited that human replicas that appear almost human, but not exactly like humans, will produce feelings of revulsion among some observers.

⁵¹ Wenden, David John. *The Birth of the Movies/ D.J. Wenden*. New York: E.P. Dutton, 1974. Print. 15.

interest” alongside images of trains, horse races, boats at sea and mechanical disasters.⁵² By 1900, there was a continued emphasis on film as a means of demonstrating movement but there were pieces of fiction that were being recorded. In 1899 Henry Beerbohm Tree filmed a scene not shown in Shakespeare’s *King John*—the signing of the Magna Carta—and in 1900, Sarah Bernhardt filmed the duel scene from *Hamlet*. These examples show early film was borrowing from the elite culture—rather than the popular—of the theater. However, for these stage stars, the transition from live performance to filmed highlights the apparent perceptive gulf between the two. Stage actors onscreen “[d]eprived of their voices and a chance to declaim, their actions seemed exaggerated and laughable.”⁵³ Historians like David and Helen Mayer argue convincingly from the position of theater history that early film performances were, instead, an accurate register of melodramatic acting style of the late nineteenth-century. Citing elocution training guides from the period demonstrates not only how codified stage movement designed for the melodramatic stage transferred over to the earliest films, but provides a view of the act of looking for the early film goer, accustomed to stage acting.

The work of early filmmaker George Méliès clarifies this. At the time that Edison’s “Black Maria” was producing miniature documentaries of movement, Méliès used plots “drawn from the world of pantomime and illusion” that “rarely attempted any theme drawn from real life.”⁵⁴ The technique of Sarah Bernhardt that catapulted her to fame onstage, appears grossly overdone in film to a modern viewer. But the *mise-en-scène*, the scenario of the stage was successful. Early filmmakers began to realize that film could show the spectacular and fantastic

⁵² Ibid, 27.

⁵³ Ibid, 35

⁵⁴ Ibid, 19

world, but thrived on realistic movement. In early film, camera movement was difficult. Tracking shots—influenced by the view from a moving train—automate the viewing eye but amplify completely. The gestural language of the melodramatic stage that amplified and automated language and communication worked incongruously with the dominant eye of the camera.

Films that drew on fiction began to break away from theatrical convention, instead using “the cinema’s ability to create an illusion of reality to make the audience believe that they were watching actual events photographed by chance, rather than enjoying a fantasy obviously staged for their entertainment.”⁵⁵ The issue became one of time. Edwin S. Porter was one of the first directors to realize that time was perceived differently in film. “It became clear that real time and film time need not coincide.”⁵⁶ More akin to the novel’s ability to move between narratives, film was not beholden to the same heightened sense of timeliness that had been established in the popular performances of the nineteenth-century. A live stage performance is happening immediately in front of the viewer, but the mediated distortion of film was exploitable.

Porter’s *The Great Train Robbery* (1903), adapted from Marble’s stage melodrama and shows these disparate elements coming together into one performance. Porter’s recognition that filmic time was different than theatrical time allowed him to “enjoy a freedom of speed and movement which theater lacks.”⁵⁷ The emphasis on plot allowed for a concurrent emphasis on motion. The spectacularity of melodrama catered to the visual nature of the medium. The style of acting that created “an illusion of reality” was emphasized by these elements.

⁵⁵ Ibid.

⁵⁶ Ibid, 21.

⁵⁷ Ibid.

The Great Train Robbery of 1903: “Replete With Thrilling and Exciting Incidents”

In Edwin S. Porter’s 1903 silent film *The Great Train Robbery*, the narrative unfolds over fourteen shots. They are occasionally brief pantomimed scenes, but the plot comes from the accumulation of actions over the course of the film. The gestures are broad—what a modern audience might call overacted or even melodramatic. Most of the shots frame the action in such a way that it occurs towards the center of the screen. In the terms of the stage, most of the action occurs center or up center, lending a feeling that the goal is to capture in one look the entirety of the events. It is not about individual actions or specific character development *vis-a-vis* close up or reaction shots. This is a narrative about the events of a group, the interactions of a community of people, whether they are the bandits or the posse.

The action of the film takes place in multiple locations of the fictional “old” (by the standards of 1903) west. Actually shot in New Jersey, the film balances static interiors with action filled exteriors. The plot of this *Train Robbery* centers on a group of bandits who set out to rob a train by hijacking the locomotive. They threaten a station telegraph operator at gunpoint to send a false message stopping the train and allowing the gang to sneak on, break into the train’s mail car and kill the mail agent to gain access to a shipment of money and beat the engine’s fireman—throwing him off the tender—in order to gain control of the locomotive. While the thieves steal jewelry and money from the passengers, murdering one who tries to flee, then escape into the woods, the telegraph operator’s daughter has discovered and released her father. He rushes to a local saloon, interrupting a lively dance, and a posse is formed. The posse tracks the thieves, now on horseback, to their camp. A firefight ensues, the posse advancing on the gang, who fall as frontier justice is meted out. The film ends with a seminal nineteen-second

close up of the actor Justus D. Barnes, one of the bandits of the story, raising and emptying his pistol directly into the camera.

The Great Train Robbery was not produced as a feature length film. It was a single reel, more than 700 feet of film, and meant to be shown as part of a variety bill. Early film was shown alongside vaudeville performances or as a type of novelty embedded within theatrical performance. Film “was born as a side show, a novelty. Quick fun, like fast food. But almost at once it became clear it was also a language. A new language. A language of ideas.”⁵⁸ Produced by the Edison Kinetoscope Company the story is entirely pantomimed. Indeed, as David Mayer describes, the basic plot from Marble’s play (or one similar) could have been well known enough from touring theater companies. The film itself has little to do with its so-called source material. Other than the title, the fact that Scott Marble spent some time writing early film scenarios and a couple of scenes that vaguely resemble individual events within the play—themselves fairly generalized from other types of melodrama—there is nothing to clearly link via performative means the film and the play. Even without a clear link, the pieces evoke one another and that evocation is strong.

While the film is called *The Great Train Robbery* the railway system plays a surprisingly small role in it. By 1903, the railways were a given in much of the western world. There was little to no novelty associated with the act of train travel. What had changed was how an audience might engage in the act of looking within a performance. This is signaled by the fact that the criminals of the piece see robbing a locomotive as a viable activity and reinforced by the casual use of and reference to the machinery of rail transport. Of the fourteen scenes (fifteen with

⁵⁸ “Episode 1—Birth of the Cinema.” Dir. Mark Cousins. *The Story of Film: An Odyssey*. HanWay Films, 2011. *Netflix*. Web.

title card) the first eight either contain the image of a train or take place on a train. Within the first three shots of the film are train-in-motion shots that are not the focus of the scene, but serve as a way to communicate space and manipulate time. The energy of these scenes is amplified by the movement of the device. And yet the railroad is a kind of new familiar. Those inter-cut background scenes, as well as all the scenes of the locomotive in motion serve to remind the viewer that this machinery was part of the new world of speed and predictability.

The piece opens in the railway telegraph office, represented as a box set with faux wood painted flats. There is a window in the upper right quadrant that reveals a secondary film of a train arriving at the station while the thieves coerce the operator. The dynamism of the arriving train against the left-to-right physical action of the thieves and operator in the office requires that the audience take in a multiplicity of images simultaneously. Nominally, the film encourages focus on the center of the shot, but the eye is also encouraged to zing around the screen to follow the narrative. The conductor pops his head and shoulders through a window in the upper-left quadrant of the shot, discussing the stop for water the criminals have forced the operator to request. In order for this story to work, it must be told in a way that the audience can make sense of the actions while creating the environment and establishing to emotional tenor.

The shots of the film action are framed with an emphasis on the horizontal plane. This framing is a relic of theatrical staging, as all action appears to be seen from the best, centered seats in a theater. This creates a sense of slight remove from the action. We can see it all so clearly, but it is happening just beyond our reach and thus, our care. Yet from that, it is clear the audience is encouraged—expected—to look at the action, because the actions and movements on the screen are the point of the piece. Within the film, the action of melodrama is being slowly wedded to the storytelling capacities of film. The interiors of the film contrast strongly to the

location shot exteriors. The switching office, the saloon, and the interior of the mail car look crudely painted and constructed, the painted canvas walls gently rocking when an actor passes them. On film, they become hyper-un realistic, creating a cognitive dissonance with the inter-cut live action exteriors. The juxtaposition of the two elements, rather than concretely providing background, jars the viewer into an awareness of the apparatus at work. In an unintentionally Brechtian move, the audience is jarred just enough to be made aware of the act of watching. In the end, the stagy interiors cannot compete with the mimetic authority of the exterior shots. It is only because of the framing of those shots to highlight the movement of bodies and objects in space that the signifying affect (authority) is reduced.

Porter's film marks a high point in the ongoing development of film editing and camera movement. Described as "the grammar" of filmic storytelling, the cutting together of images and the orientation of the camera allows the filmmaker to not simply record events but construct stories. Editing becomes storytelling and dramaturgy. Film is not just a record of events and action but a storyteller of them. This process automates the look. The eye can be directed around the frame, but the story is prescribed and the decisions of the audience are reduced. The melodramatic reliance on action operates in a similar manner. It grabs the attention, focusing the narrative. But it is a process with far more agency for the audience as the stage has less precise control over the technology shaping the gaze.

The use of two specific, and new, techniques introduce conjunctive adverbs to a story built of static, long shot, and sequential images. The use of continuity cutting creates a sequence, the edit creating a sense of "and then..." between shots. We see the bandits climb on the stopped train in scene two. The next shot begins on the interior of the mail car, with the mail messenger working, then defending himself against the entry of the bandits. The jump between the scenes is

an example of continuity cutting to establish the sequence of actions, but this instance also highlights another new technique in filmic storytelling: cutting out non-essential scenes or images in order to create excitement and interest in the story. Film was moving away from being an accurate representation of reality, but now needed to be visually interesting as well.

Parallelism, the second editing technique, gives the visual equivalent of “meanwhile.” Early film presented a series of shots telling a story in sequence from one physical point of view, then went back and repeated the sequence from another physical point of view. Introducing the filmic “meanwhile” allows the filmmakers a means to show simultaneous action in different locales. Within *The Great Train Robbery*, an example of this parallelism is the edit between scenes nine and ten. As the bandits escape on horseback, the next shot returns the viewer to the telegraph office where the operator is still bound and gagged. His daughter enters and releases him so that he can find help. The audience moves back in space—able to watch what has been happening during the robbery. Also known as cross-cutting, parallel editing further encourages the elimination of non-essential pieces of information. In scene eleven, we are in the saloon while a group of men and women dance. Three quarters of the way into the scene, the telegraph operator bursts in to announce the robbery. The audience does not see the operator get from the office to the saloon because that journey contributes nothing to the story being told. The establishment of the rugged wild west of the posse group, however, is a necessary element to move the overall plot forward. The time spent on their carousing, via parallel editing, provides more information, faster, than sequential shots can. The most significant effect of this visual “meanwhile” is the ability to increase tension. The cross cut story amplifies the speed of the narrative, building excitement. Concurrently, the editing adds an element of automation to the process of looking. The audience does not have to work to regain the excitement lost between

acts. Instead that filmic “meanwhile” occurs in a blink of an eye, almost instantly communicating. The authority found in that speed lies in the film rather than the audience. The audience watches and receives, whereas the stage audience must engage more actively.

We see this same technique employed onstage, particularly in Marble’s text. The scene break between Acts one and two eliminate non-essential visual information—how everyone gets to the Never Shut Saloon—but have to make up for it in exposition and lack of speed. The necessary act break slows the overall pace of the play. In Act four, the rapid cycling between three areas of the badlands where the pursuit of the villains is unfolding, all within the same stage space is intended to create the sense of simultaneous or slightly overlapping action. What the stage prepared the audience for was the amplification of this, manifest in a single slice of blade piecing an image together. The speed with which that shift of time and space occurred changed the ability to go back to the stage in the same manner.

Within Griffith’s film, the bandits and heroes don’t rely on complex disguise to hide their identities. It would not register within the action of the plot in the same way that it does within the play. The convention of editing grammar was established enough that unless a scene was placed where a bandit entered the posse’s saloon, why would they need to change their appearance? The events of the bandits and the events of the posse are parallel for most of the sequence of shots. When they overlap, it is at the end, when the gang is defeated by the posse. That small acknowledgment that the audience of the film is complicit and omnipotent in their view is again reinforced by the final close up of the bandit shooting into the camera. The parallel editing provides linking terms that do not force the viewer to go back and repeat the same information from a different perspective. Simultaneity is introduced and speed becomes a key element of action. Whereas in a stage play the direct address of the audience unifies the activities

of the stage with that of the crowd, the final shot in the film shatters a voyeuristic fourth wall, where the previously spied upon engages with the viewer and at extremely close range. Barnes is not looking at the camera, he is looking at me, is firing at me. It evacuates the unreality of the previous ten minutes and establishes the film audience as the ultimate authority.

The scene is iconic in all senses of the word. Visually, it has come to represent the birth of narrative storytelling on film. And yet, it simultaneously indicates how film can tell the story differently. That unique sense of staging, dictated by the technology of the film cameras, influenced by the history of the stage, is slowly evolving into the grammar of filmic story-telling through editing. But the non-sequitur of Barnes' close-up takes the viewer into something decidedly modern. It acknowledges the act of looking that has been happening for the past ten minutes of storytelling and gives the audience a metaphoric wink and smile. In a manner akin to that seen on the Restoration stage, the object of examination looks back, implicating the audience. In this way, this iconic shot also functions indexically, pointing back towards the action of the piece, demanding the audience participate in the thrill, the involvement of the preceding drama. The desperadoes are dead, but not gone, and this shot reignites the potency of the film in the mind of the audience. The audience moves forward, away from the narrative but the narrative does not leave them.

To my mind, this echoes de Certeau's railway incarceration. The audience is stable, unmoving yet moving all the while. They are going forward by not physically moving themselves. Calling attention to that dichotomy via the intentional look of the criminal evokes the reciprocal relationship of the piston and cylinder. And it is intentional, because he looks, then calmly raises his gun and empties it, frozen before the screen goes black. The result of the piston/cylinder engine is the transfer of energy; it is the root of automation. In that shot, the act

of looking is amplified and automated, as the audience is provided with a specific focus, at the exclusion of all other elements. The traditional placement at the end of the film, the framing and the clear engagement with the audience work together to reduce or eliminate the work on the part of the audience in the act of looking. We need only focus on the screen, the images will do the rest, echoing the lazy and thoughtful railway passenger.

“The Most Famous Man in the United States Meets the Most Famous Woman in France”: The Meeting of Thomas A. Edison and Sarah Bernhardt

The amplified and automated act of looking on the nineteenth-century spectacular stage and materialized in early film returns this study to where it began, with the “simple, yet remarkable” meeting between Thomas Edison and Sarah Bernhardt.⁵⁹ I argue that the meeting between “The Most Famous Man In the United States Meets the Most Famous Woman In France” allows us to contemplate the genesis of a new kind audience, with a new act of looking: the spectacular[mobile] viewer, primed by automated and amplified theatrical representation for the advent of moving pictures. This amplified, automated and highly mobile act of looking is shown in both Marble and Porter’s *Great Train Robber[ies]*. The technology of the railways help establish a “spectator’s distance”—a position apart from the world around—which is “a dispossession of the hand in favor of the greater trajectory of the eye.”⁶⁰ de Certeau identifies that this particular combination of motion and vision, mediated by an enveloping participatory machine, is what changes our interaction with the world. Viewers do not simply use the device, they are part of it, and thereby the technology shapes their material experience. Art historian

⁵⁹ *The New York Herald*. “Edison Interviewed by Sarah Bernhardt.” Reprinted in *The Musical World* 18 Dec. 1880: 58, 59. PDF. 2013.

⁶⁰ de Certeau, 112.

Lynda Nead highlights this as a peculiar effect of the period, reminding us of the cultural desire of speaking to the eye rather than the ear. Modernity, which the elision between spectacular melodrama and early film maps, “was understood to be a visual phenomenon and its most characteristic forms were those that spoke to the eye.”⁶¹

Dramaturgically, it is a shift from the word to the action—looking at a story rather than listening to it, looking at the looking embedded within. Melodrama evidences the long life of this move. With film, especially a film like *The Great Train Robbery* at the birth of narrative motion pictures, there is a concentration of that shift from listen to look as action becomes the storyteller. As the piston and cylinder transforms heat into seemingly endless, captured energy, the motion picture camera captures “light from a distant star” to bring it “back to life for the very first time.”⁶² We run the risk of the same missteps as Edison—who didn’t realize that the media of film cameras and projectors was where the real transformation will take place—when we focus on the railways, locomotives and systems of transport that shaped the Industrial Revolution. It was not the machines that carried them, but the people incarcerated within them, looking outward and reshaping their relationship with the world.

In a journal from 1908-9, Edison wrote a series of brief paragraphs on various public figures who visited the Menlo Park labs. Of Sarah Bernhardt’s stop in 1880, he writes,

While the experiments with the light were going on at Menlo Park, Sarah Bernhardt came to America. One evening Robert L. Cutting, of New York, brought her out to see the light. She was a terrific “rubberneck.” She jumped all

⁶¹ Nead, Lynda. *Victorian Babylon: People, Streets and Images in Nineteenth-Century London*. New Haven: Yale University Press, 2005. Print. 59.

⁶²“Episode 1—The Birth of the Cinema” *The Story of Film: An Odyssey*.

over the machinery and I had one man specifically to guard her dress. She wanted to know everything. She would speak in French and Cutting would translate into English. She stayed there about an hour and a half. She gave me two pictures painted by herself which she sent me from Paris.⁶³

In December of 1880, in the northeastern United States, two of the greatest opportunities for an audience keenly attuned to spectacle were found coming from Thomas A. Edison’s lab or seeing Sarah Bernhardt on tour. Yet, in his collected papers, Edison reduces meeting of one of the most famous women of the nineteenth-century to an event on par with meeting a local tourist; spending less time on their meeting than on “Unprofitable Lamp Manufacture” his observations on a “Conceited Glassblower.”⁶⁴ Most noteworthy was the vague annoyance she seemed to cause and the gift of paintings.⁶⁵ Bringing them together, however, united the imaginative spectacle of melodrama and the tense thrill of contact with cutting edge technology in a publicity event. The sparse historical record of the event rarely agrees and their meeting is referenced for historical novelty and easily dismissed as nothing more than the facts of its occurrence.⁶⁶ Sarah Bernhardt and Thomas Edison’s memoirs and the single piece of independent reporting agree on only four elements: that, in fact, the event took place; their introduction, a tour of Edison’s lab and a

⁶³ Edison, Thomas A. *The Papers of Thomas A. Edison: Research to Development at Menlo Park, January 1879-March 1881*. Ed. Paul B. Israel et al. Baltimore u.a.: Johns Hopkins University Press, 2004. Print. 1022.

⁶⁴ Ibid, 1020, 1023.

⁶⁵ Ibid, 1022.

⁶⁶ This meeting is cited by major Bernhardt biographers—Skinner, Emboden, Richardson, Gold and Fizzdale, Gottlieb. Biographers of Edison—such as Dyer, Conot, Stross and Israel—tend to peripherally note the meeting, much as Edison himself treated it. Bernhardt’s description of the meeting in her memoir, crops up frequently as a trivia item in popular press writings on history. A casual web search in 2009 brought it to my own attention.

demonstration of the phonograph by recording both Edison and Bernhardt's voices. Most of the biographies borrow heavily from Bernhardt's embellished description in her 1907 autobiography, *My Double Life*. Yet it is a remarkable event where two highly visible figures of the nineteenth-century are engaged in performing the act of looking, as they perform for one another and for the audience observing the meeting via the published reports. The significance of this brief meeting has been lost as historians sought to perpetuate the novelty of their publicity stunt, or as biographers of Bernhardt and Edison sought to highlight their subject. But the three narratives that reconstruct this event are shaped by the technological forces of the period that in turn, shape the act of looking.

The uncredited reporter from *The New York Herald* called the meeting "simple, yet remarkable."⁶⁷ On December 4, 1880, Bernhardt finished her triumphant run at Booth's Theater in New York and traveled on "the half-past six o'clock train" that arrived in a timely manner.⁶⁸ Menlo Park, New Jersey was a relatively easy distance by train from the city. Edison's proximity to the media capital helped cement his fame as the journalistic community and general public had easy access to his lab and ongoing research, as well as the man himself. Bernhardt was not expected "on account of the weather" whereby she replied "in a charming manner" that "bad weather never prevented her from doing what she intended."⁶⁹ She had "hoped she would find Mr. Edison in his blouse and working clothes, just as he is when at the roughest of his duties."⁷⁰ It was explained to Madame Bernhardt that if her arrival had been expected, "certain

⁶⁷ *The New York Herald*, published on December 18, 1880.

⁶⁸ Ibid.

⁶⁹ Ibid.

⁷⁰ Ibid.

illuminations and preparation would have been made” to which she replied that “Edison would be light enough and she wished to see him more than anything else.”⁷¹ Upon arrival, she was escorted to Edison’s library to wait until “the wizard” appeared. “She watched him steadily for a moment as she took his hand, and then, as if assuring herself, murmured—’Yes, he’s a great man; fine head.’”⁷² Bernhardt apparently “dashed into a scientific description of his work and that of his contemporaries, showing a familiarity with the subject and the men engaged in it that she surprised her listeners.”⁷³

The *Herald* describes the tour made by Bernhardt of Edison’s machine shop and laboratory where Edison demonstrated various engines, processes and elements of the Menlo Park complex. Bernhardt is described as “manifesting the acutest concern in all he showed her” and looking “as if she were a new hand just employed in the shop and he was pointing out to her the nature of her employment.” She was “enchanted with the new lights” and “listened patiently” to a minute description of their price and manufacture. She even tested “little lamps for footlights in the theater” against the “colours in her dress and cloak, and,

finding that the shades remained the same, she said that as soon as they were adopted there would be no longer any need of paint and powder on the stage, for these lights would not throw pallor in the face nor cause it to look shiny and ugly. They would bring out the expression and throw up passing shades of sentiment so that the audience would be able to notice every change of the countenance.⁷⁴

⁷¹ Ibid.

⁷² Ibid.

⁷³ Ibid.

⁷⁴ Ibid.

A remarkable observation for a performer historically famed for her voice. Between Edison's lights and Bernhardt's prescient observation, the visual sweep of modernity quite literally escorts melodrama into the coming age.

As Edison makes his notes in 1908-9, Sarah Bernhardt' retells of the incident for her memoirs, transforming the meeting into a spectacular melodrama. She describes it as "a scene from an operetta," bringing melodrama and machinery together in her narrative.⁷⁵ For her, after two performances of *Hernani*, she had to escape the theater through a gauntlet of fans and reporters, arriving late at the Menlo Park train station at two o'clock in the morning. She writes that "faster than one could take it in, the countryside suddenly lit up. Everywhere—under the trees, above the trees, in the bushes, along the paths—lights flashed into life triumphantly" as the "dazzling electric light created an impression of full daylight."⁷⁶

When Bernhardt arrived at the porch of the Edison home, she claims to have become "confused and embarrassed" upon realizing that she was "bothering him" with her presence.⁷⁷ Somewhat unlikely considering her prearranged visit with two carriage-loads of people in tow. Madame Bernhardt recalls that her "combative spirit drew on the full force of my seductive power to conquer this wonderful shy scientist."⁷⁸ A shy Edison seems less likely than an interrupted, harried and vaguely confused Edison. He spoke no French, Bernhardt little to no English; all conversation had to be made through Robert Cutting, who acted as translator.

⁷⁵ Bernhardt, Sarah. *My Double Life: The Memoirs of Sarah Bernhardt*. Translated by Victoria Tietze Larson. Albany: State University of New York Press, 1999. Print. 263-5. All future references to Bernhardt's personal recollection of the meeting come from this text.

⁷⁶ Ibid.

⁷⁷ Ibid.

⁷⁸ Ibid.

Edison anticipated the press reaction with an eye towards the work he had achieved with the first underground electrical conduit as well as all the work he was not getting done on Pearl Street municipal illumination project. The ad-hoc translator, Cutting, was director of the Light Company and friend of Bernhardt's agent/manager, Edward Jarrett. He arranged the meeting to publicize Edison's incandescent lighting system.⁷⁹

Bernhardt describes the tour like a heroine following a goblin king into his underground lair. After winning a reluctant Edison over with her "seductive power"—"half an hour later we were the best friends in the world"—Bernhardt was escorted to the lab.

I followed [Edison] quickly as he climbed staircases narrow and vertical like ladders, and crossed bridges suspended over veritable furnaces. [...] While we were both leaning over the flimsy bridge that swayed above the frightful abyss in which there turned, swung, and shrieked enormous wheels within wide belts, he gave various orders in a voice clearly audible above the din; and light sprang up in all direction, some in crackling greenish jets, some in rapid flashes, some in serpentine trails like rivers of fire.⁸⁰

She claims that "[h]e explained everything to me [and] I understood everything," a version in stark contrast with the rather banal manufacturing discussion of the *Herald*.⁸¹ But Bernhardt constructs a far more gripping narrative with visual appeal and the classic melodramatic feint of the feminine swoon. She writes that, "[t]he numbing noise of the engines and the blindingly

⁷⁹ Marks, Patricia. *Sarah Bernhardt's First American Theatrical Tour, 1880-1881*. McFarland, 2003. Print. 66.

⁸⁰ Bernhardt, 264.

⁸¹ *Ibid.*

rapid changes of light made me dizzy. Forgetting where I was I leaned on the flimsy guard rail that separated me from the abyss, with so little consciousness of danger, that before I could even recover from my surprise, I found myself swept by Edison into an adjoining room and installed in an armchair, without having any memory what had happened.”⁸² Here she is overcome by the technology—rendered less as machine and more as malevolent primal force—and rescued by the hero, the Wizard.

Bernhardt writes that she left Menlo Park, somewhere between three and four a.m. and “[a] strange illusion [was] created by the darkness- I had thought that we had traveled a long way coming over very rough roads. In fact, it was only a short distance and the road was fine, although it was covered by snow. Imagination had played a big part in the journey that had taken us to Edison’s house, but reality played a yet bigger one in the same journey back to the station.”⁸³ Bernhardt in her desire to amplify the drama of the story links nineteenth-century theater and the spectacular melodrama move towards the technology and the interaction with it transforms their visual interaction with the world.

Using this meeting as a grounds for analysis reduces the danger of making the same mistake as Edison—one of not recognizing the medium where the real transformation will take place. When we focus on the railways, locomotives and systems of transport that shaped the Industrial Revolution, it was not the machines that carried them, but the people incarcerated within them, looking outward and reshaping the act of looking at the world. The narrative of the Industrial Revolution is one of absolutism, certainty and danger, reinforced by the genre of

⁸² Ibid.

⁸³ Ibid.

melodrama. The moral absolutism of melodrama echoes the mechanical certainty of the engine in its ideal state. The film, with its unerring eye and focus on action transforms the subtlety of human emotion into action. The film is the act of looking distilled. Absolutism made rigorous yet humanized as the thing we look upon is not harnessed action but harnessed emotion.

Dramaturgically we shifted from language directing the act of looking to action we can watch—looking at a story rather than listening to it. *The Great Train Robbery* positioned at the birth of narrative motion pictures, concentrates that shift from listening to looking as camera action becomes the storyteller, rather than the eye and ear of the audience member. The play was wide-ranging, complex and theatrical, but the audience walks through the world. In the film, the audience rockets through. As the piston and cylinder transforms heat into seemingly endless, captured energy, the motion picture camera captures “light from a distant start” to bring it “back to life for the very first time.”⁸⁴

A melodrama of the nineteenth-century is defined by its action—whether the thrills of a blood and thunder type or the emotional duress of the domestic. Action is ultimately what links Scott Marble’s *The Great Train Robbery* to Edwin Porter’s 1903 film, as melodrama becomes the fuel for a new engine of looking. Moving through this revolutionary leap in technology the act of looking shifts from the intense, democratized scrutiny as manifest in the seventeenth-century, becomes a look of control, or systematization and automation where the audience is encouraged to absorb themselves into the technology of performance at the end of the nineteenth.

⁸⁴ “Episode 1—The Birth of the Cinema,” *The Story of Film: An Odyssey*.

Chapter Three: Stories Impossible to Tell: the Networked Gaze and Autobiographical
Solo Performance at the Turn of the Millennium

In the fall of 2007, I met contemporary dancer and choreographer Tonya Lockyer while taking roll. A returning student at the University of Washington in Seattle, she had enrolled in the School of Drama's "TH 201: Script Analysis," a general education course taught by a rotation of graduate students in the PhD program. After a twenty-plus year career in ballet and modern dance, she was returning to school to complete her MFA in Dance. Mid-quarter, she approached me with an invitation to see a piece of performance she had created. It was being produced at On the Boards, Seattle's presenting organization for performances of *avant garde* theater, dance and music from around the world. Titled *Consumed*, the sixty-five minute solo piece combined spoken text, dance, recorded music and video to tell the story of Lockyer's life and career in dance. The autobiographical content of her performance was compelling—and humbling, as she'd been sitting in my class all term—yet it was the deconstruction of the roles of voyeur and exhibitionist within the context of a solo performance, using original choreography, spoken word and technology that demonstrated the networked act of looking for the Information Age.

This networked act of looking was materialized within the Lockyer's piece as, two thirds of the way through, she rolled an older, vacuum tube television onstage and started a VHS video, announcing, "Yes, I have been secretly taping my neighbors."¹ She added, in a tone both playful and questioning, "[t]his man has no privacy. Is it a big deal if I appropriate his movement?"² Onscreen was a man engaging in an apparently improvised dance on the sidewalk of a quiet city

¹ Dayna Hanson. *Consumed*. On the Boards: N.p. 2008. DVD.

² Ibid.

street at night. The video was shot from above, at a strange angle and suffused with yellowish light. While the looped material played, Lockyer began copying his movements, bringing the captured dance to life in front of us. And in that moment we became voyeurs, deriving enjoyment from the surreptitious recording while her self-identified appropriation and performance of the anonymous figure's dance was transformed into an exhibitionist practice. Implicating the audience in the act of voyeurism, Lockyer placed us in a position of constant negotiation between states of being. We watched the process of watching, searching for the connective material to link this scene to the previous, contemplating what was to come as a dancer spoke and recreated a moment from a different time and space.

Theorist Kazys Varnelis offers that “today we situate ourselves less as individuals and more as the product of multiple networks composed of both humans and things.”³ The combined technologies of the personal computer, Internet capability, and the World Wide Web—a technological convergence colloquially known as *being online*—materially shapes performance of the Information Age. The Web is both a product and process of Varnelis' theory of networked culture. In networked culture “a node's relationship to other networks is more important than its own uniqueness.”⁴ The Web is thus defined by its associative power, located not solely within the object of the search or the searching subject, but between them. Defining the links between nodes as a search makes the act of looking central to being online. Online access is a tool for looking defined by interconnectivity and mobility.

³ Varnelis, Kazys, ed. *Networked Publics*. Reprint edition. Cambridge, Mass.: The MIT Press, 2012. Print.153.

⁴ Ibid.

Lockyer's piece materialized these qualities of the networked act of looking through the dramaturgical techniques employed in *Consumed*. The piece reflects Lockyer's indebtedness to postmodern performance with non-sequential scenes, an emphasis on the visual, and use of cultural citation throughout—distinctive elements of the postmodern that developed in the 1970s and dominated the 1980s. But the dramaturgical structure's emphasis on autobiography as a frame, the use of fragmented scenes jumping in space and time, and her use of technology evokes the experience of the World Wide Web. On the surface, the connections between 1980s postmodern theory and a dance piece in Seattle, WA in 2008 do not appear to have anything to do with technologies of the Information Age. Yet, it is how the structure of her piece merges the postmodern aesthetic with the contemporary moment that materializes author David Weinberger's description of the World Wide Web as "many small pieces, loosely joined."⁵

Echoing Weinberger's description, in this chapter I analyze two pieces to demonstrate the parallel evolutions of performance and the technological convergence of online access during the Information Age. The text of Spalding Gray's 1985 monologue *Swimming to Cambodia*, in relation to the 2005 performance of punk rock raconteur Henry Rollins shows how the evolution into the Information Age is registered theatrically. This juxtaposition of dramatic literature and performance, covering a span of over thirty years, materializes a qualitative sensibility of network culture. Linking these disparate pieces together actually reveals more than the individual performances do. The representational techniques of these performances highlight the

⁵ The use of the term "search" is deliberate. Movement online is both metaphorical and physical. To search, to navigate, to surf are ways to describe the abstract experience of moving through electronically rendered information. But the Internet itself is a means to allow physical connection between independent geographically located computers. The descriptor from the 1990s of "the information superhighway" is not entirely unrealistic, as it is a technology that allows bots to jump from link to link and bring material back to caches. Large search engines—like Google—are like storehouses of possible destinations. You go to their storehouse and then go onto the new link from there.

development of the networked act of looking in the Information Age, juxtaposing the perceived intimacy of personal narrative with public performance to emphasize interconnectivity defined by mobility.

The Web is a technology that defines the Information Age—a historical period reaching as far back as the development of the first electronic computers in the twentieth-century, but truly beginning with the advent of the Digital Revolution in the late 1960s. The World Wide Web, is a network constructed by tools for looking: search engines. These complex algorithms are designed to aggregate indexed information for an average computer user to navigate through. The use of the term *search* to describe these algorithms plays on the synonymic qualities of the word, emphasizing the act of looking. A Web search embodies movement and encourages a type of interactivity between search object and the subject that is wholly determined by the act of looking.

The networked act of looking in the Information Age is defined by the concept of indexicality. As is true with much of the Web, the index is both cause and effect. Much of computing technology is built around the concept of indexing. The index serves as a means for the rapid retrieval of information, and is the means to make the bytes of a computer's stored memory legible to the user. The World Wide Web, built on the technology of hypertext, is an object—albeit a virtual one—in its own right. But its materialization is as a series of interconnected indices. On the web, we do see things, but—to appropriate Gertrude Stein—there is no there there. Because of this, everything experienced online, while it has the appearance of solid realness, is, in fact, as ephemeral as live performance. All of the signifying authority is determined by association.

Theorist Rob Shields, writing in “The Ethic of the Index and Its Space-Time Effects” brings together postmodernity and technology in an argument that emphasizes how interconnection and mobility are materialized by hypertextuality. His assessment of the visually driven experience of the Web reinforces the indexical experience created by the technology. Shields observes that “[t]he ontology of the World Wide Web is more than simply a question of space, sites, or pages; it is fundamentally concerned with links and motion.”⁶ Shields argues that “links are central not only to the navigational practices of Web browsers but also to the constitution of webpages themselves.”⁷ The Web is a visual experience, constructed by the “apparently stable displays on a computer screen” built of these hypertextual links.⁸ The links that form the Web “force viewers into an awareness of the constructed quality of webpages” through the disruption of the “easy flow” of the material onscreen.⁹ “[T]hey send the viewer elsewhere; they break up the authorial control of texts and supplement and problematize what has been displayed or written.”¹⁰ For Shields the “spatial and temporal qualities” are an “effect of the bricolage of digital images, text, and other elements linked together by hypertext references.”¹¹ Shields’ use of the term bricolage evokes the postmodern aesthetic, where the juxtaposition of apparently unconnected elements generated new meaning that challenged master

⁶ Shields, Rob. “Hypertext Links: The Ethic of the Index and Its Space-Time Effects.” *The World Wide Web and Contemporary Cultural Theory*. Ed. Andrew Herman and Thomas Swiss. Psychology Press, 2000. 145–160. Print. 145.

⁷ Ibid.

⁸ Ibid.

⁹ Ibid.

¹⁰ Ibid, 145-6.

¹¹ Ibid.

narratives. Identifying the qualities of a web search as aesthetically postmodern brings the aesthetic period and the technology into direct conversation.

A Different Engine: Digital Revolution to Information Age

There is no reason for any individual to have a computer in his home.

Ken Olson¹²

In an infamous misstep from 1977, the co-founder of Digital Equipment Corporation dismissed the idea that home computers would ever be of interest to the average consumer. Olson was speaking during the early days of what has come to be known as the Information Age. This periodization, stretching from the 1950s through the early twenty-first-century, is based on the exchange of information rather than the manufacture of goods. And, while the Industrial Revolution marks the start of the Age of Industry, the Digital Revolution marks the beginning of the Information Age. The *digital* of this revolution refers to the broad shift from analogue to digital electronics and it was the development of digital electronic circuits that lead directly to the technologies of the networked personal computer and World Wide Web.¹³

Digital refers to both a specific technological state and a state of being. Digital data is information represented discontinuously—data represented by a specific set of descriptors. In terms of digital computing, all data is represented by 1 or 0 (on or off). Reduction of all data into

¹² Edwards, Benj. “10 Most Memorable Tech CEOs of the Digital Era.” *PCMAG*. N.p., 21 Jan. 2011. Web.

¹³ These terms contain simultaneous etymological, technical and metaphorical meaning. The etymologies of the terms *digital* and *analogue* reveal their defining qualities. A digital form is one represented by digits, whereas an analogue form is one that is analogous—an imprint or direct marking. Digital and analogue as technical terms, refer to states of recording or representing information. Analogue is a measurement where a wave form is recorded or used in its original form—sound vibrations etched into vinyl then played back with a needle. Digital refers to a form that is sampled at an interval, then converted into numbers and stored as such. Metaphorically, digital has come to imply a reality shaped by advanced technologies, as *digital* has come to be exclusively associated with computing technology. Analogue is now associated with an older reality.

collections of 1s and 0s might appear to flatten it, but it retains its unique qualities. It has been translated for faster communication. The digital state is thus marked by interaction, or exchange, and adaptation. For theorist Charlie Gere “[d]igital culture has been produced out of the complex interactions and dialectical engagements” between multiple cultural discourses.¹⁴ As a result, “the paradigm of abstraction, codification, self-regulation, virtualization and programming” are concepts that mark the contemporary digital state.¹⁵ The Digital revolution, as a means to mark a massive socio-cultural shift has been viewed historically as technologically based.¹⁶ The rise of the digital electronic computer brought about the social changes. But, as Gere argues “it would be more accurate to suggest that digital technology is a product of digital culture.”¹⁷

Olson mistook the digital revolution, seeing the computer as an end rather than a means. Home computing was—in the end—not about the computer. The device may have been the object for most developers during the twentieth-century, but the technology’s connective ability was the capacity that drove them. In 1937 mathematician and computing pioneer Alan Turing theorized a “logical computing machine” as a byproduct of his research.¹⁸ Turing wrote that “[i]t is possible to invent a single machine which can be used to compute any computable

¹⁴ Gere, Charlie. *Digital Culture*. Reaktion Books, 2009. Print. 18.

¹⁵ Ibid.

¹⁶ The paradox of this statement is that historians of technology will always begin or center their histories on the technologies because that is their subject. Perhaps because of the relative proximity to the period and technologies under examination, scholars of the Digital Revolution are prey mechanistic valorization.

¹⁷ Gere, 17.

¹⁸ Turing, A. M. “On Computable Numbers, with an Application to the *Entscheidungsproblem*.” *Proceedings of the London Mathematical Society* s2-42.1 (1937): 230–265. Web. 241.

sequence.”¹⁹ His claim that a mechanical device that was programmable and utilized binary coding was so far away from extant technologies that he conceived it purely as a thought experiment. Because the technology to implement those ideas lagged so far behind, the development of computing technology, for a time, eclipsed the ultimate goal of information sharing and distribution.

Computer science has always been about the goal of connection. Computers are a means to hold and access a large volume of information, but with the intention of use. The historical narrative constructs computers as the technology that started the Digital Revolution, ushering in the Age of Information. But the devices started nothing but more, improved versions of themselves. As early as Charles Babbage’s work in the nineteenth-century, the goal of fast, reliable computation has been interconnection.²⁰ Compressing circuits into microchips condensed data capacity and increased speed. But what you do with data is share it. An aphorism of the internet age is that “information wants to be free.”²¹ While Stuart Brand was referring directly to cost, he was also evoking the desire of computer scientists and developers towards a networked and accessible pool of data. The kind of looking that a network encourages is user centered and associative, related to both the scopophilic gaze of the Restoration and the mobile look of the nineteenth-century.

¹⁹ Ibid.

²⁰ Charles Babbage (1791-1871) was an English philosopher, mechanical engineer, inventor and mathematician, who is regarded alongside mathematician Ada Lovelace (1815-1852), as having invented the first mechanical computer and originating the concept of the programmable computer.

²¹ Stewart Brand (1938-) is a writer, best known as the founder and editor of *The Whole Earth Catalog*, an American counterculture magazine and product catalog published between 1968 and 1972. Harkening to the Sears & Roebuck catalogs of the Industrial Revolution, the *Catalog* showcased products ranging from clothing to early computer kits, including books, machines, seeds and other tools of self-sufficiency. The phrase “information wants to be free” is generally attributed to Brand and has become a slogan of activists seeking to limit governmental interference in information exchange.

What the contemporary world colloquially refers to as *online* is a complex system of technologies that centers on the personal computer. The intricate electronic devices sitting on a desk, in a lap or carried in a pocket are colloquially referred to as *computers*. As early as 1613 a computer described a person responsible for computing complex mathematics.²² This specialist role was gradually eliminated with the development of mechanical calculating machines. Charles Babbage called his 1840s era mechanical computer designed to complete polynomial functions a *difference engine* but for the tasks that figures like Alan Turing set their advanced calculating machines towards, the name mechanical computer seemed apt.²³ The development of the microchip facilitated the transformation of the cultural relationship to the computer.²⁴ What had been an industrial or professional machine because of expensive and large scale electronic circuitry became domesticated through compact size. Reducing the circuitry that previously filled a room onto a piece of silicon the size of a fingernail transformed computing power demonstrated by space into a power manifest as speed. Microchips paved the way for the personal computer of the late 1970s, revolutionizing the average person's interaction with technology. Prior to the commercial introduction of devices like the Commodore PET, the TRS-80 or the Apple II, computers were huge devices housed in labs and university basements. Home computers—or personal computers (PCs)—are microcomputers popularized for non-technical

²² “Computer, N.” OED Online. Oxford English Dictionary. Web. 4 April 2016.

²³ The earliest computers are defined as mechanical—built of mechanical components like levers and gears—until the advent of the electronic components.

²⁴ The first integrated circuit—or microchip—was developed in 1958 by Jack Kilby at Texas Instruments. While the development of this type of electronic circuitry condensed onto a small plate of semiconductor material—silicon being the most well know and colloquially familiar material—was theorized as early as the first part of the century, Kilby provided the first working model of an integrated circuit. Semi-conductor devices that exploited the electronic capabilities of semiconductor materials, like silicon, could perform the same functions as vacuum tubes in earlier electronic devices. The application of circuitry to conducting material radically reduced the size of computing components.

use. The home computer is a smaller, infinitely faster echo of the industrially sized machines of the early twentieth-century, in the hands of the average person.²⁵ Computers became smaller, faster, and popular.

Beyond the more accessible hardware, how the user interacted with the software of the personal computer moved from the technologically abstract to the visually concrete in the form of a virtual desktop and windows. The original code of a computer appears using the text based command-line interfaces (CLIs)—these lines of code are visible when a user peels back the layers of visual organization that creates a desktop using a command to view the “Properties” of an object or document. What developers like Steve Jobs and Bill Gates recognized was the ease of use from graphical user interfaces (GUIs), referring to the now standard PC desktop that relies on the concept of “point and click” for the user to interact with the device.²⁶ This emphasis on the visual transforms the monitor into a screen more akin to a television or film screen. Originally, monitors functioned as a means to observe switch activity and register data streams. GUI software generated a sense of accessibility and interaction via the screen. The monitor, and by extension, the computer, became a device that used the visual as a means of communication between user and technology.

²⁵ It is worth noting that during the birth of the personal computer, these machines were almost prohibitively expensive. In 1977 an Apple II was priced at approximately \$1200.00. The Commodore P.E.T 2001, released the same year, retailed for approximately \$800.00. Those numbers are high, considering the economic recession of the late 1970s, but in today’s dollars—\$4700 for the Apple and \$3100 for the Commodore—the prices indicate that these were devices sold to and experienced by the wealthy. Compounding this, early personal computers could be purchased relatively inexpensively as partially assembled kits. Therefore, if you were stymied by initial cost, but had enough personal knowledge, you had access to a new means of interaction.

²⁶ Over the course of researching and writing this dissertation, Apple and other competitors introduced touchscreen technology that further draws on the sense of the visual and transforms computing into an interactive, physicalized experience. The consequences of that development are outside the trajectory of this study but may provide rich territory for exploration in further research.

The Advanced Research Projects Agency Network (ARPANET)—developed by academic researchers and used by the American military during the Cold War and beyond—was an early system of networked computers.²⁷ This early Internet was a decentralized network, so if one terminal went down, there would still be information shared between the remaining ones. The first use of the network was on October 29, 1969 at 10:30 pm, between UCLA and the Stanford Research Institute. The computer scientists communicated by phone to determine if the letters being typed in Los Angeles were being seen in Palo Alto. They managed two (L and O) before the system crashed, but as Leonard Kleinrock offers, “a revolution had begun.”²⁸ By 1972, early electronic mail—email—systems were being used with increasingly more networks being created. Throughout the 1970s and 1980s, the computer code technology for distributing information rapidly developed, creating the technological structure of the Internet. The form we are most familiar with in 2016 came in 1989 when Tim Berners-Lee, a British software engineer working at CERN (European Organization for Nuclear Research) proposed a system for distributing information over the Internet, naming it the World Wide Web. Initially dismissed by his supervisor as “Vague but exciting” Berners-Lee was given permission to work on it in addition to his other responsibilities.²⁹

To do this, Berners-Lee drew on the work of a revolutionary computer scientist from the 1960s, Ted Nelson, who theorized the concept of interconnected information exchange systems. Instead of using the Internet as a point-to-point communication system—one computer talking to

²⁷ARPANET’s existence was largely due to the development of packet-switching—or reducing transmittable information into small, communicable packets—and the work of Paul Baran, Donald Davies and Leonard Kleinrock.

²⁸ Strickland, Jonathan. “Who Invented the Internet?” *HowStuffWorks*. N.p., n.d. Web.

²⁹ “Cern.info.ch - Tim Berners-Lee’s Proposal.” *History of the Web*. World Wide Web Foundation. 2008-15. Web.

one other computer—Berners-Lee envisioned code that would turn all the computers linked to this system into an information sharing powerhouse. It was the idea of a networked “web” whereby any single user could access the information being made available by another networked source. In a year, he had written the computer code that would transform the Internet: HTML, HyperText Markup Language; URI, Uniform Resource Identifier; HTTP, HyperText Transfer Protocol. HTML is the formatting language of the web and the URI is the unique address of each resource on the web. HTTP allows linked material to be retrieved across the Web. In all of Berners-Lee’s software is the term that would conceptualize the Web and define a means of looking at the world: Hypertext.

“As far as the eye can reach”: Hypertext

If the personal computer is the technology of the Digital Revolution, then hypertext is the technology of the entire Age of Information. The World Wide Web that organizes most people’s online interactions is built on Ted Nelson’s concept of *hypertext*.³⁰ Coined in 1965 Nelson defined hypertext as “a body of written or pictorial material interconnected in such a complex way that it could not conveniently be presented or represented on paper.”³¹ The term *hypertext* and its etymology now broadly describes the technological interconnection of links that makes up what we call the World Wide Web, accessed via the internet. The conceptual framing of hypertext is another thing entirely. Writing in 2006, literary theorist George P. Landow offers that “[h]*ypertext* denotes an information medium that links verbal and nonverbal information.”³²

³⁰It is the term later adopted by the architect of the World Wide Web, Sir Tim Berners-Lee, describing the computer code connecting pieces of information across the Internet: HTTP or HyperText Transfer Protocol.

³¹ Waldrip-Fruin, Noah. “Ted Nelson, Copyright & Literary Machines.” Copyright and the Networked Computer: a Stakeholder’s Congress. Washington DC. 2003. Power Point.

³² Landow, George P. *Hypertext 3.0: Critical Theory and New Media in an Era of Globalization*. JHU Press, 2006. Print.3.

Hypertext is a specific technology—an end—but also “a medium”—a means. The prefix *hyper-*, as used here, connotes extension and generality rather than a colloquial association of unregulation and speed. The *text* is—in a distinctly post-structuralist turn—anything than can be rendered into computer code: actual text, images, films, and sound. The world is a potential text.

And it is the *world* even if it is not the entirety of the mimetic, live, experienced world. Although, with every improvement of telecommunications technology—Skype video calling comes to mind—that gap narrows. The Web, a mosaic of hypertextually linked pieces, is the technology that transforms the personal computer into a tool for looking because, embedded within it, is the concept of the search.

Engineer Vannevar Bush tackled this issue of searching as early as 1945. He theorized the Memex as a device that might solve our “ineptitude” at recovering stored information by harnessing the associative power of the human mind.³³ Writing in the essay “As We May Think” Bush had been director of the United States Office of Scientific Research and Development during World War II and responsible for overseeing the creation of technologies related to the war effort. Publishing his formative essay in *The Atlantic*, Bush recognized the “artificiality of systems and indexing” where information “can be in only one place.”³⁴ What Bush—and computer scientists and code writers afterwards—recognized was that however logical the indexical system, the brain does not tend to index as much as create associative pools.

The human mind [...] operates by association. With one item in its grasp, it snaps instantly to the next that is suggested by the association of thoughts, in accordance

³³ Bush, Vannevar. “As We May Think.” *The Atlantic* July 1945. *The Atlantic*. Web. 14.

³⁴ *Ibid.*

with some intricate web of trails carried by the cells of the brain. [...] Selection by association, rather than by indexing, may yet be mechanized.³⁵

The personal computer appears to solve the not insignificant issue of mechanization, but does not address exchange, which is where Bush moves into speculation. Ted Nelson, building on the ideas of Bush, self-published the slightly underground yet ground-breaking work *Literary Machines* in 1965 positing multiple forms that a system of connected machines might take.³⁶ His conceptualization of information distribution and reception utilizes a variety of hand drawn images and diagrams in an attempt to visually represent how an individual could use a computer to move through information in a manner that was collaborative but personalized. Nelson materialized Bush's theory visually, offering a picture of the interconnected exchange of data.

Consider the PC as a filing cabinet. The act of searching through stacked and filed information on a computer is equivalent to searching a more compact filing cabinet that adds exponential speed to the process. You can add or remove material easily enough, but the prospect of sharing is limited by the technology. You need a container managed by fallible humans to move information from one to the other—floppy disks, zip drives and thumb drives as folders. With independent, unlinked computers, any single item must be duplicated to exist in both cabinets for there to be sharing. Duplication of materials, mimics exchange but is really a

³⁵ Ibid.

³⁶ For Nelson, there was a conceptual distinction between hypertext and what he called *hypermedia*, referring to connections to any other type of media other than text. Nelson writes in *Literary Machines* that “*hyper-media* are branching or performing presentations which respond to user actions, systems of prearranged words and pictures (for example) which may be explored freely or queried in stylized ways...Like ordinary prose and pictures, they will be *media*; and because they are in some sense ‘multi-dimensional,’ we may call them *hyper-media*, following mathematical use of the term ‘hyper-.’” The term hypermedia has gone by the wayside, having become interchangeable with the concept of hypertext, in some ways reducing the specificity with which the work of the Internet can be described in favor of a flattening generality that exerts a subtle social pressure on the users.

redundancy built into the network. It's within that process of sharing that the search becomes the defining metaphor of modern computing. The development of the HTML, URI, HTTP code is the means to transform material from any one filing cabinet into accessible data with a consistent location online. Duplication is sharing, but transformation into an imaginary space engages the user in an active process (the search) that relies on visualization as a means to comprehend the technology at work. ARPANET's internet provided a means, via telecommunications technology, for these independent filing cabinets to connect, eliminating the need for outside-of-the-machine migration of information, allowing for the possibility of exchange, rather than duplication, of material. With access to the Internet, the computer-as-filing-cabinet is connected to millions of other cabinets at any one time, creating a network of information. This is where computational speed and programs to comb through massive amounts of material become critical, as the information is only as valuable as any one person's ability to access it. The rise of the searchable data aggregator in the 1990s provided faster linking to information—a kind of meta-link. Called a search engine, these complex algorithms translate a word like *tree* into a constellation of hyperlinks of all types. The process of looking is, like in the case of the steam driven locomotive, amplified and automated via the microprocessor. The computer becomes a tool for looking, different from the locomotive, as it is the capacity of the immaterial Internet that allows the user to look.

Theorist Rob Shields makes clear in 2000 that hypertext links are “the cornerstone of the web” but “are central not only to the navigational practices of Web browsers but also to the constitution of webpages themselves.”³⁷ His argument identifies that the structuring technology

³⁷ Shields, Rob. “Hypertext Links: The Ethic of the Index and Its Space-Time Effects.” *The World Wide Web and Contemporary Cultural Theory*. Ed. Andrew Herman and Thomas Swiss. Psychology Press, 2000. 145–160. Print. 145.

of the web is both the process and product of it. Hypertextual links “force viewers into an awareness of the constructed quality of webpages: they send the viewer elsewhere; they break up the authorial control of texts and supplement and problematize what has been displayed or written.”³⁸ Shields argues that “the Web must be understood as dynamic. It is not a timeless, ambient space in which ‘action takes place,’ but rather a vectoral space that does not exist apart from the action of calls out to remote servers and files and links from one page to another.”³⁹

In the early days of the Internet, the colloquial term for accessing the hypertextual information online was *to surf*. It was a description that imagined the data on the Internet as an ocean of breaking waves of which the computer user could only hope to grab on to. This constructs the online world as a natural force rather than the technological creation it is. Born of the rise of search engines, the most current terminology for navigating online material is *to search*. This analogy of the Internet and Web is visually based and engaged. We are not passive viewers but activated and mobile inside the technology.

The search engine emphasizes text, but hypertextual linking plays with the endless stream of signified meaning from any one word. Searching is both familiar and accessible. No longer are we employed in a metaphorical test of skill with an overwhelming, perhaps deadly, amount of information that could crash over us in a wave. Instead, we engage in an eternal game of hide-and-seek, as we look and look and look, each iteration providing new branches to explore, yet always driven by the user’s context. This visually engaged, searchable web emphasizes mobility, speed and interconnections through the technology of hypertext in the exchange of information.

³⁸ Ibid, 146.

³⁹ Ibid.

The speed of transfer can feel immediate.⁴⁰ The links that allow you to move from one textual, visual or aural idea to the next creates the sense of proximity, or drawing the Net or Web closer to ourselves. The user moves through the structures in an active posture.

Landow, in describing that active posture of the user, argues that hypertext “blurs the boundaries between reader and writer.”⁴¹ He refers to Roland Barthes’ analysis of the readerly and writerly text as described in *S/Z* offering that “[t]he writerly text is not a thing,” instead it is “the novelistic without the novel, poetry without style, production without product, structuration without structure.”⁴² Hypertext, as a Barthesian writerly text exists in “a perpetual present” as a “galaxy of signifiers, not a structure of signifieds; it has no beginning; it is reversible; we gain access to it by several entrances, no of which can be authoritatively declared to be the main one; the codes it mobilizes extend *as far as the eye can reach*.”⁴³ Landow’s citation of Barthes reinforces the textual as accessible primarily through the visible. The web search and its attendant technologies, while based in text are fundamentally constructed as the networked act of looking.

Theatre as Window, Theater as Screen: The Postmodern and Performance

In 1983, while personal computers began to dominate the cultural life of the era, theater theorist Elinor Fuchs observes that “[l]anguage used to be the clear window through which the

⁴⁰ The average home Internet connection speed in the United States in 2015 is around 10 Mb/sec (megabits per second), if you have access. A megabit is defined as 1,000,000 binary pulses or the electronic 1/0 pulse on transistors of a microchip.

⁴¹ Landow, George P. *Hypertext 3.0: Critical Theory and New Media in an Era of Globalization*. JHU Press, 2006. Print. 4.

⁴² Barthes, Roland, and Richard Howard. *S/Z: An Essay*. Macmillan, 1975. Print. 5.

⁴³ *Ibid*, 5-6.

objective world was perceived.”⁴⁴ Fuchs uses a visual analogy to describe the period of aesthetic and theatrical representation occurring during the Digital Revolution: the Postmodern. Language had been a window—a tool in the act of looking and a means to both decipher and produce a single, stable narrative. As in the world of the personal computer, language, in the form of computer code, was a tool for creation and description. But Fuchs extends the analogy, adding that “[t]he discovery that the pane itself is all we can know of the view ‘beyond’ has made criticism, or writing about writing, into a new kind of literary creativity in itself.”⁴⁵ In the Postmodern era Fuchs describes, the seeming “clear window” of language is revealed to be a screen—a monitor to register the simultaneous meanings and narratives, produced in part by the viewer and driving a new performative act. Akin to the developments in the world of computer software, the recognition that images would drive interaction transform the representational practices away from the narrative. The Postmodern, as both a historical era and form of representation, breaks from the historical centrality of the text. The postmodern is a mode of theatrical representation that focuses on the act of looking by challenging the presumed authority of language through the visual.⁴⁶ In the same manner that computer scientists recognized the accessibility of visually based programs, theater artists explored the implications of performance freed from the dominance of textual and narrative structure. Enactment and the moment of performance became central as a means to connect. The seeming clear window that became a reflective screen evolves into a site for creativity. Through Fuchs’ visual analogy, the single

⁴⁴ Fuchs, Elinor. *The Death of Character: Perspectives on Theater after Modernism*. Indiana University Press, 1996. Print. 171.

⁴⁵ Ibid.

⁴⁶ This is an arresting phenomenon, as Postmodernism constructs the opposite of language (speech) as image (sight). But the aural faculty (hearing) is more properly the direct opposite of language. Perhaps why, within the postmodern aesthetic, music has played such a critical role.

point authority of any text is shattered, constructing theater as a tool for looking that casts the audience as both artist, critic and viewer. In defining the theatrical world of the postmodern, Fuchs ties the act of looking to representational practices and, in so doing, describes the act of looking that defines the period.

Postmodernism, as a set of representational techniques, is uniquely attuned to the act of looking as a negotiation between public and private. Architecture, as a representational practice that actively constructs visible public and private spaces is the art, that according to theatre theorist Fuchs, postmodernism is “most unequivocally identified [with].”⁴⁷ Architectural pastiche created structures that quoted multiple aesthetic periods in the creation of something referential yet wholly new. Architectural design—even poorly done—is highly visible within the culture because of the monumental scale, public visibility and relative permanency. Structures function twice over, as spaces to inhabit and objects to be looked at. The postmodern aesthetics’ roots in architecture show how the form highlights the act of looking. We must look at the architectural object, if only to navigate around it or in relation to it. But the postmodern architectural object, designed with the conscious use of pastiche, emphasizes that act of looking *at*. We are meant to read the individual aesthetic quotations within the whole. Furthermore, as monumental objects erected in context with the environment, postmodernist architecture continually creates its own pastiche in relation to the architecture around it. The ever changing map of an urban space unites streamlined glass and steel with Neo-classical brick through real estate development. It is an accidental effect, therefore lacking the self-conscious irony and quotation that is a hallmark of postmodernism. But it is a perceptible effect, nonetheless, highlighting the visual, calling attention to the act of looking. The act of looking constructed via

⁴⁷ Fuchs, 145.

postmodern architecture highlights the tensions between public and private by placing the viewer in private space of signification while engaging with spectacular public space.

The term postmodernism was inconsistently used as early as the 1880s, but first employed to describe the aesthetic borders of a specific epoch in 1939 by historian Arnold Toynbee. It has come to refer, broadly, to both a style of representation and a historical period. Performance theorist Phillip Auslander clarifies this critical point regarding the postmodern and is worth quoting at length.

Relative to aesthetic performance, postmodernism has been used as: (1) a periodizing concept, (2) a way of describing the contemporary culture in which performances occur, and (3) a stylistic descriptor. Uses of the term ‘postmodern’ to describe a moment in history (1) are somewhat difficult to distinguish from used of the term to describe contemporary culture (2). Nevertheless, some commentators attempt to define a postmodern era by addressing such questions as when it began and how it differs from earlier historical moments, while others are content to describe contemporary culture as postmodern without delimiting its historical boundaries. Some critics use “postmodern” in still another way, as a stylistic term to identify new developments in aesthetic genres with well-established conventions (3). All three uses intersect, of course, since most critics ultimately wish to discuss how the distinctive characteristics of particular performances relate them to postmodernism in its historical and cultural senses.⁴⁸

⁴⁸ Auslander, Phillip. “Postmodernism and Performance.” Steven Connor, ed. *The Cambridge Companion to Postmodernism*. Cambridge University Press, 2004. Print. 98.

The ambiguity in its periodization is part and parcel of its definition, as the postmodern emphasizes the disruption of stable representational narratives. Cultural theorist Jean-François Lyotard, writing in 1979, called the postmodern a term to “describe the state of our culture following the transformations which, since the end of the nineteenth-century, have altered the game rules for science, literature, and the arts”⁴⁹ While Lyotard has a more expansive notion of the postmodernist chronology, as a historical period, the postmodern can be marked as beginning in post-World War II, but flourishing in the 1970s and 1980s. Lyotard goes further still, defining postmodernism’s overarching impetus as an “incredulity toward metanarrative.”⁵⁰ The resistance to the metanarrative results in a theatrical form emphasizing the act of looking to challenge the concept of a single fixed meaning inherent within an artwork or performance. Theorist Bonnie Marranca clarifies this, identifying the authority of the audience when she writes “[t]hat is not to say that a work had no meaning, only that it was different for each spectator.”⁵¹ The individual interpretive power of the spectator constructs performance as a technology to connect individuals by eliding between the public performance space and the private internal space of the audience member.

Yet, as theorist Marvin Carlson argues, “Postmodernism has never really been established as defining a particular approach or even a group of artists within the theatre.”⁵² Because of that lack of definitive origin or practitioner, the postmodern aesthetic is defined by its

⁴⁹ Lyotard, Jean-François. *The Postmodern Condition: A Report on Knowledge*. U of Minnesota Press, 1984. Print. xxiii.

⁵⁰ *Ibid*, xxiv.

⁵¹ Marranca, Ms. Bonnie, ed. *The Theatre of Images*. Baltimore: The Johns Hopkins University Press, 1996. Print. 161.

⁵² Carlson, Marvin A. *The Haunted Stage: The Theatre as Memory Machine*. University of Michigan Press, 2003. Print. 146.

prefix *post-*. The after-ness of *post-*, with its implied breaking provides both a beginning and endpoint, an arbitrary verbal space to differentiate and comment on. The term postmodern, in its resistance to modernity, implies that it comes from—but after—what defined Western concepts of modernity in art. Techniques like experimentation, a swerve away from narrative, and the use of abstraction throughout content and form represent the elements that the postmodern elaborates on or challenges.

Within the theatre in the United States and Europe this points to groups like the Living Theatre and Richard Schechner's experiments with environmental theatre which provided an expansive notion of what is physically permissible in performance. These performances fully broke with theatrical realism and naturalism by emphasizing a direct physical engagement with the audience. These breaks in dramatic representation owe much to the tradition of performance art—which has its “antecedents in the performance experiments of the early twentieth-century avant-garde movements.”⁵³ Performance art is “often taken to be an intrinsically postmodern art form, both historically and stylistically, rather than an art form with postmodern manifestations.”⁵⁴ The evolution of representational practices in performance is further linked to the transformative social revolutions of the 1960s. The civil rights movements in the United States and Western Europe worked to dissolve dominant cultural structures—described by Lyotard as metanarratives. These totalizing explanations of history, experience of knowledge are, for Lyotard, a hallmark of modernist thinking that postmodernism seeks to resist. The postmodern distrust of any authoritarian position derives from the 1960s aesthetic of disruption of social conventions. The socio-political challenge to authority of the 1960s becomes, broadly,

⁵³ Auslander, 99.

⁵⁴ Ibid.

in the 1970s, a renewed focus on the unique subject position of the individual with a rise in identity politics. Performance theorist Phillip Auslander describes this cultural shift away from the dominant metanarrative of dramatic theater as an emphasis on “pluralism.”⁵⁵ He writes

The vast majority of the playwrights produced on the modern Anglo-American and European stages well into the 1960s were white males whose sexuality generally was not discussed openly if it was not known to be hetero. As a result of the influence of theatrical movements directly informed by the identity politics of social movements in the late 1960s and 1970s, women playwrights, playwrights of color, and queer playwrights are now much better represented both in the theatre.⁵⁶

The pluralism that Auslander identifies is one of the most visible qualities of the postmodern theatrical aesthetic. Creating visibility for previously marginalized people—through playwriting and performance—highlights the role of the act of looking within the form. The intersection of social revolution and performance technique designed to challenge authoritarian positions and emphasize pluralism is an example of the multifaceted act of looking that is both a process and product of hypertextuality. The result is layered, with multiple time spaces driven or centered within a pluralistic audience experience.

While the history of postmodern performance is intertwined with performance art and the social revolutions of the twentieth-century, it is not, as Elinor Fuchs writes in *The Death of Character: Perspectives on Theater after Modernism*, “the exclusive province of experimental

⁵⁵ Ibid, 102.

⁵⁶ Ibid.

performance groups.”⁵⁷ She reminds the reader that “[a] number of plays have appeared whose concerns revolve about the fragmentation of identity, the alienation of language, and thus the questioning of text itself.”⁵⁸ While it is not the purview of simply “experimental performance groups,” as a theatrical form, its origins lie in the *avant garde*.⁵⁹ Beginning with the work of performance groups like the Living Theater or the early *happenings* produced by Allan Kaprow, these *avant garde* performances expanded the notion of what was physically permissible in a performance environment.

The techniques and dramatic forms that become associated with postmodern theater materially extend Auslander’s concept of pluralism. Director Elizabeth LeCompte—head of the iconic postmodern Wooster Group in New York—described the theater they produce as “for people used to watching television with remote control.”⁶⁰ Their performances are a multi-sensory collage, but LeCompte’s televisual analogy is telling as it locates a sense of control over the total narrative in the viewer through the active disruption of metanarratives, represented by the televised material. LeCompte explains that “[i]t feels like the action on stage—the channels—[are] constantly changing. The Wooster Group is often described in terms of music, choreography, movement, archaeology, architecture: every word but theater. And yet, the result is the most theatrical of theater: spectacle, emotional content, story-telling—the senses rebalance themselves.”⁶¹

⁵⁷ Fuchs, Elinor. *The Death of Character: Perspectives on Theater after Modernism*. Indiana University Press, 1996. Print. 174-5.

⁵⁸ *Ibid.*

⁵⁹ *Ibid.*

⁶⁰ Yablonsky, Linda. “Elizabeth LeCompte.” *BOMB* Fall 1991. Web.

⁶¹ *Ibid.*

Richard Schechner's work on environmental theatre and Jerzy Grotowski's elimination of theatrical technology with an emphasis on the body as instrument encourages a break with Realism in theatrical representation. Artists such as these engage in more direct audience involvement, challenging the traditional boundaries between the private audience member and public performance. As Fuchs argues, avant-garde artistic and performance groups like these create the ideological ground for the rise of postmodernist practice.

Postmodernism—true to its own nature—is built from a variety techniques to accomplish the fragmented and boundary collapsing effect of its form. Because “the collapse of boundaries—between cultures, between sexes, between the arts, between disciplines, between genres, between criticism and art, performance and text, sign and signified, and on and on—is what postmodernism is all about,” the means to accomplish that varies.⁶² Pastiche—the conscious imitation of another artistic work or style— is employed not to purely imitate but to comment through imitation. Collage becomes a means to physicalize the interplay of possible meanings, whether through text, image, music or physicalization. The material reality of the pluralism Auslander describes becomes a collage of bodies, voices and spaces as previously marginalized artists produce work. Postmodernism has become more familiar through its self-conscious irony and the mixing of both supposed high and low culture. Popular culture functions as a means of actively challenging the perceived and constructed boundaries between high and low culture.

But postmodernist technique, while emphasizing the visual and the act of looking, is not decorative. To employ the techniques of the form without the intent behind it is “evidence of a

⁶² Fuchs, 170.

superficial and debased postmodernism.”⁶³ Fuchs argues that this appropriation of postmodern technique is “ubiquitous on the ‘trendy’ stage” adding that “[i]t is now a theatrical commonplace that Javanese shadow puppets, the Kabuki orchestra, Native American ritual dances, and other ‘signs’ from traditional cultures will be ripped from context and used for decorative purposes.”⁶⁴ Evacuated from context, this kind of decorative pluralism is employed for a passive, consuming gaze where the work of association has been done for the audience rather than by the audience.

The postmodern act of looking moves away from the superficial decried by Fuchs and towards the creation of a “Theater of images.”⁶⁵ In 1977—during the same early days of the development of the PC—performance theorist Bonnie Marranca coined the term in her book of the same title. Hers was just one of the possible terms floated to describe performances from the late 1960s through the 1980s that were an “expansion of the audience’s capacity to perceive” with a theater “devoted to the creation of a new stage language, a visual grammar ‘written’ in sophisticated perceptual codes.”⁶⁶ Marranca’s terminology has become a means to describe the work of specific artists from within the postmodern era. Her book centers on the early work of Robert Wilson, Lee Breuer and Richard Foreman calling it “the climactic point of a movement in the American avant-garde” of theatrical groups that “exclude dialogue or use words minimally in favor of aural, visual and verbal imagery that calls for alternative modes of perception the part of the audience.”⁶⁷

⁶³ Ibid, 175.

⁶⁴ Ibid.

⁶⁵ Marranca, x.

⁶⁶ Ibid, xv.

⁶⁷ Ibid, x.

Theater of images was assimilated into the postmodern but in recent scholarship, the postdramatic—a term introduced by the work of Hans-Thies Lehmann—has become a means to describe representational practices of contemporary theatre and differentiate them from the postmodern. Published in 1999 in German, the English translation of 2006 bridges the postmodern and the contemporary moment. Lehmann traces the movement from a central concern with dramatic text towards an expansive notion of performance that emphasizes the physical, visual and aural components. Piet Defraeye writes that “[w]hile the dramatic takes the world out there as its main referent in the process of signification, post-dramatic theatre is focused on the theatrical itself.”⁶⁸ The postdramatic becomes a convenient means of describing one branch of performance that has previously been described as postmodern. A performance where “Gesture and movement lose their purposive functions and become the object itself” is distinct from a performance that maintains language and “the world out there” as a communicative core.⁶⁹ The postdramatic, then, is a term that differentiates theatre from performance within the postmodern historical period. Theater is defined as a space of narrative drama, although stylistically disrupted. Performance is a means to describe the expansive notion of theatre, brought about from the world of performance art.⁷⁰

To this end, when Marranta’s 1977 text noted an “absence of dialogue” leading to “the predominance of the stage picture” we can now refer to this as postdramatic.⁷¹ But it is the

⁶⁸ Defraeye, Piet. “Postdramatic Theatre (review).” *Modern Drama* 50.4 (2007): 644–647. Web. 645.

⁶⁹ Ibid.

⁷⁰ Ibid.

⁷¹ Marranta, ix.

emphasis on the image, the visual and the act of looking that is highlighted, no matter what the name. Significant to this study, which emphasizes dramatic literature as a means of approaching the ephemeral performance life of historical periods, Marranca offers, in a new afterword to the 1996 edition of *Theater of Images*, that “[i]t was never the case that the Theatre of Images was antitext.”⁷² Rather that she wished to emphasize that “the visual image had its own rhetoric.”⁷³ The rhetorical function of the visual image is highlighted by Marranca looking back on the postmodern as a period concurrent to the Digital revolution, defined by the dominance of the personal computer.

Everyone Has One: Autobiographical Solo Performance

Just as combining the steam engine with ingenious machinery drove the Industrial Revolution, the combination of the computer and distributed networks led to a digital revolution that allowed anyone to create, disseminate, and access any information anywhere.

Walter Issacson⁷⁴

The combined elements of independent creativity and fluid distribution that gives access to a broad population speaks to the plurality of theatrical postmodernism as described by Auslander and Fuchs above. The growth and popularity of autobiographical solo performance during the 1980s and 1990s converge with postmodern theater and the digital gaze to show the networked act of looking. Popular historian Walter Issacson observes that, for most of the era of personal computing, the computer was a tool for individual creativity. It was the connection to

⁷² Marranca, ix, 163.

⁷³ Ibid, 163.

⁷⁴ Issacson, 39.

the Internet—the insertion of multiple voices into a network—that encouraged a new act of looking via the technology. The networked personal computer Issacson describes becomes a tool for looking, as “any information anywhere” is available for the user to find. By contrast, western theater, while certainly supporting a long history of individuality through star turns, inherently operates as a collaborative art. Theater is situated as collaborative technology, shaped by socio-political and economic forces to discourage the individual as producer.

The formal elements of collage, pastiche, parody, and allusion in the postmodern require an act of double vision where we see the referent and the sign simultaneously, rewarding the close observation by the viewer. The postmodern requires the audience to see the old and new while being made conscious of the constructed nature of the view. In this way, the postmodern aesthetic constructs a new act of looking by emphasizing and rewarding visual double coding. This way of looking is reliant on the dynamic engagement of the viewer. The audience funds the associative pool that makes the double coding legible. While there is the actual, assembled art object in front of the viewer, the act of looking and the space of meaning is virtual. The meaning is relatively concrete but it does not exist in any real present. Instead, that evocation of a participatory space driven by imaginative forces is the visual space of the information age.

As a theatrical form, solo performance has a long tradition in the United States. Theater historian John S. Gentile writes that so-called “platform performances” made solo performances popular to the more religious audience found in the culturally conservative post-Civil War U.S. that might deem the spectacular melodramas of the period as immoral.⁷⁵ The rise in popularity of the form is noted by performance scholars Gentile and Eric Dale Eubanks who observe that in

⁷⁵ Gentile, John Samuel. *Cast of One: One-Person Shows from the Chautauqua Platform to the Broadway Stage*. University of Illinois Press, 1989. Print. 3.

the early 1980s “[t]here [were] no book-length studies” that were “specifically devoted” to the form.⁷⁶ Twenty years later solo performance had “established its legitimacy both as a field of scholarly exploration as well as an art form.”⁷⁷ Gentile’s history of the form in the 1980s employs Richard Schechner’s term “autoperformance.” These are not “monologues in the traditional sense of a one-person show, but in the more radical sense of using the one person who is performing as the source of the material being performed.”⁷⁸ Gentile, in turn, describes the work of performers like Spalding Gray as “[t]he ultimate examples of the biographical one-person show genre.”⁷⁹ Gentile’s observation that the autobiographical monologist “weaves social and personal history” highlights the simultaneity described by Schechner—the audience has a sense of watching concurrent creation and performance. It is live in the fullest sense of the word, even if the content is planned or scripted.

Deborah R. Geis’s critical analysis of the use of monologue in contemporary drama frames the material in relation to theories of postmodernism. Theorizing solo performance with an eye towards the role of subject formation in the dramaturgy, her analysis of the specific performative elements of autobiographical monologues shows how these performances are born of the multiple forces of late twentieth-century postmodernism while acting as a force to shape the culture. Geis places Gray’s work in a discourse with the scripted work of playwrights like Sam Shepherd and Maria Irene Fornes as well as performance art solo performers like Karen

⁷⁶Gentile, John S. and Eric Dale Eubanks. “Casts of One.” *Text & Performance Quarterly* 22.2 (2002): 149. Print. 149.

⁷⁷Ibid.

⁷⁸ Ibid.

⁷⁹ Ibid, 148.

Finley. Through this proximity, Geis is able to discuss the role embodiment plays, specifically, in autobiographical solo performance.

The term *solo performance* can range from monodrama—a single fictional character onstage, as in *Krapp's Last Tape* by Samuel Beckett—to polylogues—a single performer embodies as a series of characters, as in Anna Deveare Smiths' *Twilight: Los Angeles*, or more recently, Sarah Jones' *Bridge & Tunnel*. In its broadest definition, solo performance encompasses all forms where a single figure performs on a stage. It does not require speech or movement, can be fictional or non-fiction. The solo performance's many forms can encompass the work of a stand-up comedian, ethnographer or performance artist, making this a theatrical form where different means of looking is part of the form. While biographical monodrama is a well-known example of solo performance—consider Hal Holbrook's *Mark Twain Tonight* or William Luce's *The Belle of Amherst*—the work of the autobiographical solo performance merges the pluralist form and association driven ideology of postmodernism coupled with the independent mindset of the computer programmer. Autobiographical solo performances, are frequently scripted, whether heavily or lightly, but have enough flexibility allow for some variations dependent on audience interaction.

But the genre of solo performance of interest here utilizes speech, occasionally movement, and is emphatically non-fictional. Elements may have been edited for content and style, but in particular I am interested in those performances who register as somehow more informal, more engaged in direct address of the audience. These autobiographical solo performances demonstrate the networked act of looking when the potential for slippage between the stage and audience is heightened. In part this is a consequence of the autobiographical component of the work. As dramaturgical structure, autobiography destabilizes the apparent

secure reality it presents. Thomas Postlewait describes “the three personae” within autobiography as the author, the character and the narrator, all sited within the performing body and “interrelated but not interchangeable.”⁸⁰ The narrator performs the character put in place by authorial choice—whether improvisational or scripted. The character, while physically present in the body of the solo performer also exists in a virtual space created by the performer’s creation of multiple times and spaces within their narratives. Those moments of slippage, the unevenness in the text over a glimpse of the real within the performer, moves the viewing audience out of the virtual, imagined spaces of the story and back to the node, embodied in the performer.

While spontaneity—whether real or constructed—is a key to the solo performance, the autobiographical solo performance differs from the work of a comedian, although, perhaps only in marketing. Comedians like Margaret Cho in her 1999 performance *I’m the One That I Want*, use a predictable outline of stories and jokes, but relies heavily on spontaneous interaction between audience and performance. These performances can lace the humor with pathos and drama, blurring the lines between the personal monologue and comedy. But the intention behind the performance, for a self-identified comic like Cho, is to make the audience laugh. Laughter, tears, fright, empathy are all possible by-products of the autobiographical solo performance. That multiplicity of possible response more clearly identifies autobiographical solo performance as a product of postmodernity. The intentionality behind the stand-up comedian’s performance changes the work into something that might be influenced by postmodernity, but is more clearly linked to dramatic theater through vaudeville.

⁸⁰ Postlewait, Thomas, and Bruce A. McConachie. *Interpreting the Theatrical Past: Essays in the Historiography of Performance*. University of Iowa Press, 1989. Print. 255.

For the autobiographical monologist, their engaged in a complex retelling of themselves before a live audience enables them to challenge the master narrative of dramatic structure. These performances, both voyeuristic and exhibitionist, are often constructed to appear spontaneous. They appear to be immediate, lived experiences rather than the slightly improvised but otherwise highly structured pieces of theater that they are. But the subject is ineffably the person before you, navigating the line between public and private, visible and invisible.

These types of performances are examples of the postmodern challenge to all forms of structural authority. Inherently small scale and frequently easier to produce, with material as unique as every performer, the totality of the form is an active resistance to cultural master narrative. Sometimes called “confessional monologues,” autobiographical solo performances frequently depend on aspects of the performing body that may be erased in the context of narrative drama. For example, the politically charged practice of (supposed) colorblind casting demands a kind of visual elision over the ethnic identity of the performer in service of the character. A mix of ethnic identities populating a production of *Henry V* requires the audience to deliberately ignore the bodies of the actor in service of the performance of the characters, whereby a person of Asian, African or Latino/a descent may play the Anglo-franco characters of Henry or Katherine. In the work of solo performers like Anna Deveare Smith or Sarah Jones—both black women—they embody not only different ethnic identities but often different genders. But while their solo works are tour-de-forces of mimetic representation, it is an issue of embodiment. For this reason, the form of autobiographical solo performance has been a form of intervention by minority populations. Solo work of this type encourages a type of close observation, but the reward is in ignoring certain facts, to watch the person of the actor actively closing themselves off in favor of the character. In the context of the autobiographical solo work,

no such elision can occur. The performer is always simultaneously performer and character, encouraging the audience to see them as they exist in both of those positions. The reward of looking in autobiographical solo performance is a sense of total observation. While the narratives are constructed and the performances directed, the stage figure is actually the performer. The pluralist mentality of postmodernism supported a new generation of solo performers whose work allowed them to insert themselves in the commercial performance culture of the period, extending their overall visibility.

The act of one person telling a story of their own, singular experience is not inherently universal and relatable. There are a whole host of material factors that construct their relatability or that even make it possible for that performer to be in the position of telling that story. I argue that any sense of universality resides in the body of the spectator, as a sense of empathy or sympathy that draws on the material and manufactures a bond of similarity. The story of a middle-aged white man from Rhode Island, a Korean-American comic, or a queer performance artist is nothing so much as their story, made available to me. The work of the autobiographical solo performer highlights my own interiority as a virtual, networked environment of associations. It feeds on, rather than evacuates, the distinctions between us.

As Auslander writes “[t]he ubiquity of the autobiographical monologue was so pronounced in the art world of the late twentieth-century that one way described it as the screenplay of the 1990s (in the sense that everyone seemed to have written one).”⁸¹ The autobiographical solo performance, extending the postmodern aesthetic, is a performance form that materializes the network ideology of the information age.

81 Auslander, 103.

“Stories Impossible to Tell”: Spalding Gray and Autobiographical Solo Performance

In a journal entry from 1979, American actor, writer and autobiographical monologist Spalding Gray wrote “I sometimes feel like [...] I am this open conduit through which I let other energies pass.”⁸² Gray’s observation unconsciously connected the technology of the computer with his solo performance life as he revealed what he felt about the experience of performing. Gray constructs his work—a performance of his lived experience—as a device that an audience can engage with in order to access another world of secondary material. He offered, “It started as an actor and the other energies were other people’s scripts. /Now it is my life that is passing through me.”⁸³ The information for the audience is the result of this technology as Gray transformed his neuroses into dramaturgy through obsessive self-observation and heightened self-awareness. Gray’s work, either overtly or through cultural accretion, has defined the practice of autobiographical solo performance for the past thirty years.

Gray is frequently held up as the *sui generis* of the contemporary autobiographical solo monologue. In particular, his *Swimming to Cambodia* is a piece that crosses over from the very specific late 70s New York *avant garde* into popular discourse. His more than thirty year long career began in the rise of 1960s New York, downtown, *avant garde* theater but came to broad public attention in the 1980s. By the time *Swimming* was published as a set text in 1985, Gray had “been doing solo performance for so long” that he self-identified more as a monologist than actor; more specifically, an autobiographical solo performer from a very specific provenance, The Wooster Group.⁸⁴ To that end, Gray’s narrative in *Swimming* explores his relationship with

82 Gray, Spalding. *The Journals of Spalding Gray*. Ed. Nell Casey. Reprint edition. New York: Vintage, 2012. Print. 65.

83 Ibid.

84 Ibid, 95.

acting and performance, as much as his experience in movie making. Throughout, he describes his dislike of the business of professional acting, calling it a “big, indifferent machine” with a mind to decide his—or any actor’s—suitability for a role.⁸⁵ This is one of the reasons he began making his own solo performative work away from the Wooster Group. “I wanted some power and influence over the events of my life.”⁸⁶ Gray’s neuroses marginalized him, yet in a kind of comic, Woody Allen sort of way. He—founding member of the Wooster group, old-school East Coast, cast in a Hollywood film—he was hardly *outside*. He was unusual within accepted parameters.⁸⁷ Gray’s work shows the tension between public and private that underlies networked ideology. The volume of accessible information via the Web is staggering and it appears as if interaction is anonymous, but that is an illusion. The Web creates an illusion of Roland Barthes’ “writerly” text, but without an active engagement on the line of public/private, that writerly quality remains illusory.

The subject matter of the monologue centers on Gray’s small part in the 1984 film *The Killing Fields* and is an iconic model of this type of solo performance, in terms of both dramaturgical structure, as well as the presentation style. So influential was Gray’s style that the next generation performers have even gone so far as to appropriate elements of Gray’s spare visual environment—usually a man seated at a wooden table with a microphone, a notebook and

⁸⁵ Ibid, 11.

⁸⁶ Gray, Spalding. *Swimming to Cambodia*. Theatre Communications Group, 2005. Print. 11.

⁸⁷ As Dr. Scott Magelssen observed in correspondence “and, now after his death, his eccentricities and social quirks have been more canonized and beatified as genius.”

a glass of water.⁸⁸ Gray never mistook that what he was producing was theater, a public presentation of himself as character/narrator/author.

Swimming to Cambodia was not the first of Gray's autobiographical work. As one of the founders of the Wooster Group in 1975, he and the group, alongside director/partner Elizabeth LeCompte, mined Gray's early life to devise the trilogy of theater pieces *Three Places in Rhode Island*. These differ from Gray's purely solo work but inform the dramaturgy of his later solo pieces. The *Rhode Island* trilogy were fully produced, with what came to be Wooster trademarks of an integration of spoken text, physical theater, exploration of live technology and sound.⁸⁹ In *Swimming* he asserts that "I had been down at the Performing Garage [home of the Wooster Group] for so long that I'd lost touch with that scene."⁹⁰ The scene he referred to was the one of commercial actors and their interactions, behind the scenes of a large scale dramatic production. It is "that scene" which forms the dramatic spine of *Swimming* as he describes his experience on-set. Simultaneously he uses that as a means to explain, or explore, his turn towards solo performance. These are moments where he self-consciously describes his inability to get his lines correct, where he feels out of step with the rest of the so-called real actors on set. Gray's ability

⁸⁸ Solo performer Mike Daisey most clearly attempts to imitate the visual environment of Gray. In his performance of pieces *The Agony and Ecstasy of Steve Jobs* and *The Last Cargo Cult*, Daisey seats himself behind a desk, with a glass of water and occasionally some notes. Daisey, even while self-consciously quoting Gray's work, demonstrates the tension between fictional and nonfictional solo performance. Daisey makes claims of pure autobiography, yet his work is, in fact, highly mediated pieces of fiction woven with snippets of direct experience. Daisey's claims about the autobiographical authority of his work have come under fire in recent years. In 2012 the public radio program *This American Life* retracted their previous support of Daisey's piece *The Agony and Ecstasy of Steve Jobs* when it was revealed that many of the claims Daisey made regarding the working conditions in Apple computer factories in China were grossly exaggerated or outright fabrications. In an episode devoted to this, Daisey responded to the claims with an assertion that his work was "theatricalized" and that he never made any overt claims to truth.

⁸⁹ David Savran's 1986 monograph on the Wooster Group, *Breaking All the Rules*, provides a detailed look at the genesis of these pieces and how that came to inform the autobiographic style of Gray's later monologues.

⁹⁰ *Ibid.*

to stand both inside and outside the material allows the audience to do so as well. This quality of movement outward and back, through narrative information and multiple thematic points creates a virtual web of material for the audience.

Built in two parts—an abstracted act one and two—the monologue covers Gray’s work in a small role of Roland Joffe’s 1984 film *The Killing Fields*. Gray was cast as a diplomatic assistant, passing information to a New York Times reporter covering the bombing of Cambodia and the civil war against the Khmer Rouge in 1973. The monologues deal with Gray’s work as an actor on the film set in Thailand and Laos contrasted with his search for a “perfect moment” before he has to return home.⁹¹ In constructing the narrative web, Gray provides a clear-eyed, highly relatable history of the conflict in Cambodia. He describes the Khmer Rouge as “weird bunch of rednecks” trained by the Viet Cong; their invasion of Phnom Penh as akin to “a hundred thousand rednecks rallying in New Paltz, New York, ninety miles above the City, about to march in” and makes the experiences that remained largely unknown in 1984-5 highly accessible. This is a hallmark of his dramaturgy, the ability to transform material that might place an audience at a remove into something personal and intimate. The use of analogy, rather than reductionist, is expansive and associative. The overall dramaturgical structure of the monologue utilizes mobility and interconnection to construct a networked gaze into a virtual reality.

Part one begins *in medias res*, on a day off in Thailand at a hotel pool. In his description of the surroundings, Gray introduces all of the thematic elements that make up both parts of the performance. The audience enters his stream of thought and associations. The circumstances that brought him to Thailand—what might be perceived as the beginning of the narrative—occurs after five passages that introduce the scene of the action, detail Gray’s comically awful

⁹¹ Gray, 5.

experience smoking pot from a British film electrician on a Thai beach and introduces his fractious relationship with then girlfriend, Renee. Gray then jumps the narrative track of the story, changing space and time to offer that “[i]n February of ‘83 I met this incredible British documentary filmmaker, Roland Joffe.”⁹² Joffe is in the process of casting the film *The Killing Fields* and meets with Gray to discuss his possible casting. Gray describes it as an audition, but it is an echo of the experience the audience is having at the moment of the utterance. “He did all of the talking while I listened and he talked and talked. He talked for about forty minutes nonstop. Roland told me the story of *The Killing Fields*.”⁹³ Joffe’s narrative is then embedded within Gray’s performance, as he echoes the story of New York Times reporter Sidney Schanberg and his Cambodian associate, Dith Pran. What Gray achieves with his structure is a materialization of a set of networked connections. He is present, behind a table in 1985, telling a story to an audience about what happened in 1983 as he, Gray, listened to another man recount the story of two other men, recounting their experiences in 1973. Gray has related this information to contextualize the how he ended up stoned, on a Thai beach, in 1984. But he has moved the audience through time, all the way back to 1973, then brought them back again via the moment of his audition with Joffe. Gray employs this structure to construct himself as both outsider and insider. He is the viewer and the viewed by moving between stories which are centered on himself, material that is filtered through him but more general or presenting the stories of others allows Gray to construct himself in this liminal position.

Gray spends a considerable amount of time providing a compact and verbally annotated version of the history of the United States covert bombing of Cambodia through part one. His

⁹² Ibid,9.

⁹³Ibid.

focus ranges from the macroscopic, like the passing of the Cooper-Church Amendment, to the microscopic where he imagines the response of the President: “Nixon kept saying, ‘Bomb, bomb, bomb,’ and the bombs kept falling.”⁹⁴ Gray’s juxtaposition of the complex with the morbidly engaging generates a push-pull effect where the listener is kept at a remove by the content of the material, then more actively engaged with a dramatized rendition of the lived experience coming from that initial information.

In the segment before the story of Jim, Gray ends with one long, richly detailed sentence:

So that five years of bombing—along with the traditional diet of lizards, bugs, bark and leaves, education in the Maoist doctrine including a touch of Rousseau, and other things that we will never know about in our lifetimes including, perhaps, an invisible cloud of evil that circles the world and lands at random in Germany, Cambodia, possibly Iran and Beirut, maybe even America—set the Khmer Rouge up to carry out the worst auto-homeo-genocide in modern history.⁹⁵

Gray draws together all the information he has presented in the previous five segments into this sentence into a dramatic, sobering button. He has repeatedly referenced the “traditional diet”—including bark—and educated the audience about the Khmer’s interest in both Mao and Rousseau so these terms act as links back to the previous segments. These indexical signs within the sentence function to gather pieces together, keeping the audience connected with the digressive facets of the material.

⁹⁴ Ibid, 19.

⁹⁵ Ibid, 22.

About mid-way through part one is the story of Navy Jim. He pauses at the end of the above passage, then offers the seeming non-sequitur, “[w]henver I travel, if I have the time, I go by train.”⁹⁶ There is a break, a breath, between these two divergent ideas, but nothing more. Gray enters into his discussion of meeting a man in the lounge car of a train on a trip from Chicago to New York, sometime in the recent past. Jim is in the Navy, stationed in Philadelphia in a “top secret” posting on “a battleship in a waterproof chamber.” The sense of Cold War menace is amplified by Gray describing how Jim claims he is “chained one arm to the wall for five hours a day, next to a green button, with earphones on.”⁹⁷ What the button does exactly, we never learn. Jim, via Gray, is introduced as a swinger. It is a piece of information that seems intimate and out of place for two strangers to be discussing—but perhaps no more intimate or out of place than Jim’s description of his work. But the significance of this exchange is quickly shown to actually be Jim’s relation to the Cold War military experience. In a relatively short interaction, characterized by rapid jumps of subject, the narrative circulates quickly between personal and public. Gray uses this interaction to lead into a series of related, quick digressions about his attempts over the course of his life to take a stand or fight for a position. His inability to comprehend the continuing stalemate of geopolitical interactions is the actual subject. Translated via his personal life experiences, it is a materialization of Gray’s attempt to understand how a profoundly disenfranchised population, pushed to the brink, might respond with the Cambodian genocide. But in the construction of the piece, Gray can only comprehend the bigger issue of Cambodian history—“I couldn’t get a clear vision of Cambodia in my mind”—if he filters it

⁹⁶ Ibid.

⁹⁷ Ibid, 23-4.

through his own psychology and experience.⁹⁸ Gray assembles a series of facts, putting together pieces of information as a means of achieving visual mastery. The series of conflict sequences that he runs through feel like wholly new but related components. Indeed, as they all build towards his question “how do we begin to approach the so-called Cold War [...] between Russia and America if I can’t even begin to resolve the Hot War down on Northmoor and Greenwich in lower Manhattan?”⁹⁹ The exchange with Navy Jim concentrates the multiple thematic strands of his narrative, as the dramaturgical structure of the monologue shows the networked act of looking through the dense layering of narrative interconnection.

Within the story of Navy Jim is another dramaturgical hallmark of the networked act of looking. The layering of stories within stories makes this segment a compact demonstration of Gray’s ability to evoke multiple, simultaneous time-spaces to give a sense of movement to an otherwise quite static stage picture. No matter how far Gray roams verbally, he remains sitting at a table with his notebook and water. When he introduces his experience with Jim, Gray is in the middle of telling a story of his experience on a film—itsself a retelling of another story—when he begins to use Jim’s stories as a means to connect to a fourth degree of narrative remove. It is more of the virtuoso push-pull dynamic that draws an audience in and keeps them at a remove, while moving them through space and time. Navy Jim serves as a nodal point that links to all of the other material. The links Gray makes are curated associations—like formal hyperlinks connecting webpages—but the associative power within the virtual space of the audience is another set of networked points. The networked act of looking constructed through Gray’s dramaturgical structure places narrative authority partially within the body of the audience.

⁹⁸ Ibid, 15.

⁹⁹ Ibid, 33.

Gray did not rely on teleological narrative structure. The individual events do occur in a past and present in regard to the performance moment. Certainly there is a historical past when he describes Cambodian history. But in destabilizing the space-time of the narrative, he destabilizes the audience's linear conceptualization of the story. This allows the material to become conceptually linked to Gray as a new signifier. His structure doesn't simply tell a story in an engaging manner, but actively performs the disorienting speed, movement and associative linking of what would become the Web. The computer—the machine—has little to do with the reality behind the screen. We believe, online, that we are somehow shielded—by distance, by anonymity. These are false assumptions based on a lack of understanding of the mechanics of computers.¹⁰⁰ Gray, by eliminating or reconstructing, the technology of theater reinforces/creates the illusion of proximity and access. He removes the screen between user and information.

“Dubious Notoriety”: Henry Rollins and the Networked Gaze

Your curiosity must never wane! Ever. You are, therefore you want to know, want to go, want to know more and want to go further.

My optimism wears heavy boots and is loud.

Henry Rollins¹⁰¹

Punk rock icon, autobiographical solo performer, writer, television host, traveler, actor, publisher and part-time disc jockey Henry Rollins operates far outside the *avant garde*, New

¹⁰⁰ The fact that the building block of the Internet, as Berners-Lee designed it, is based on the unique “address” of each and every computer means that anonymity is a constructed technical process rather than one granted by being far away from someone.

¹⁰¹ Rollins, Henry. “SSU Commencement 2009 :: Henry Rollins Speech.” *Sonoma State University*. N.p., 23 May 2009. Web.

Gabriella. “Interview with Henry Rollins: A Heavy Weight with Heavy Thoughts.” N.p., Jan. 1998. Web.

York theatrical frame of Spalding Gray. But the construction of his solo “talking shows”—he speaks rather than sings—embodies the networked act of looking in relation to Gray. Rollins uses the form demonstrated by Gray to build the relationship of exchange with the audience. His performance emphasizes the act of looking through interconnected and fluid narrative structure that encourages the audience to move between states of watcher and watched. His use of autobiographical solo performance transforms him into the ultimate participant observer. What Rollins does that Gray shies away from is conscious use of aspects of his celebrity to connect with the audience via a stage figure of himself. That figure, rather than distancing performer and audience, becomes a means to experience things the audience would not have access to otherwise. The subject matter of his shows, in conjunction with the execution, construct the audience as accomplices to his experiences—his celebrity offers him access rather than superiority. That access constructs Rollins as the object through which we are able to closely examine and experience what he goes through, as opposed to Gray’s construction as the subject.

Savvy performers reinvent themselves constantly as part of the celebrity machine, as part of a bid for survival. Rollins’ story is not unique, but he evolved quite rapidly from a singer/poet/writer into someone who is not quite comedian, pundit or actor. Rollins began doing his talking shows at the behest of a Los Angeles record producer Harvey Kublick. “He said I could do whatever I wanted; read something I wrote, tell a story, whatever.”¹⁰² On 25 November 1983 took to the stage of the Lhasa Club, solo. He claims that “[t]here were a lot of poets on the bill. I listened to them and it didn’t do anything to me. When it was my turn, I went up and told a story about growing up in Washington DC, watching the riots as a little kid.” Rollins offers that it

¹⁰² Rollins, Henry. *Get in the Van: On the Road with Black Flag*. Baker & Taylor Video, 1994. Print. 80.

was “strange” but “cool” to be onstage without the band which he fronted, iconic punk outfit Black Flag.¹⁰³ “People seemed to like what I did. They were asking me how many years I had been doing ‘spoken performances’ and I told them about twenty minutes, which at the time was the case. I started doing more shows of this kind and it continued to be a good thing.”¹⁰⁴ Good enough that as of 2016 he will have been producing talking shows that he tours through the United States and Europe, in an alternating two-year cycle, for thirty-three years.

The performance event in question, the thing that makes him a solo performer akin to Spalding Gray, is what he refers to as a “talking show.” They are, like Gray’s pieces, not scripted but softly set inside a frame that changes over the course of a tour. This built in flexibility reveals how this same technique that promotes mobility in Gray’s performance allows Rollins to make links and connections within individual performances. For Rollins “[t]he information is different every time; it’s a story that keeps unraveling.”¹⁰⁵ He describes that this form of autobiographical solo performance provides “more opportunity for divergent sea change,” offering that

I walk on stage with three or four hours of working material, but within two weeks, it becomes more like six hours. That’s just because one thing leads to another; something happens in the world that I can connect to something else in the set, or whatever. That’s one of the things that getting a little older has been

¹⁰³ Black Flag was a hardcore punk band, founded in Hermosa Beach, CA in 1976. Founded by guitarist and songwriter Greg Ginn the band was composed of a rotating group of musicians over its ten plus year career. Central to the first wave of American West Coast punk, Black Flag is considered a major influence on punk subculture. Respected for their DIY ethos of music production, the band was known for mixing their short, three-chord format songs with longer, more complex songs and instrumentals. Rollins joined the band in 1981, merging themes of anti-authoritarianism with social isolation, poverty and neurosis.

¹⁰⁴ Rollins, 115.

¹⁰⁵ Goggins, Joe. “Henry Rollins on Touring, Spoken Word & Nostalgia: The Skinny.” *The Skinny: Independent, Cultural, Journalism*. N.p., 8 Jan. 2016. Web.

helpful with—with more experience, you can make those links more easily and understand how things feed into each other.¹⁰⁶

Rollins may ascribe his ability to focus his material an accident of age, but it evokes the process of a search engine, as more terms and connections begin to simultaneously contract and expand the network of possible information.

From that moment at the Lhasa Club where the poets “didn’t do anything” for him, Rollins has systematically eliminated the fictional from his performance life, relying on the non-fictional, perceived truth of his first person experience. In this way, Rollins has reconstructed himself as not just a node in a complex network, but as a network in and of himself. Early performances were dependent on the audience’s knowledge of what was then Rollins *real life* or *real job* as a singer. The talking shows evolved into performance events of their own, with material drawn solely from Rollins’ experiences—presenting his life and inner monologue made exterior. While he became known as a solo performer, his work with Black Flag and the Rollins Band slowed considerably and his presence as a television host and occasional dramatic actor increased his literal visibility as his physical body became a node within the network of Henry Rollins.¹⁰⁷ Now, as his fame has become dependent upon, or more firmly rooted in, his solo performance, audiences attend not simply because he was the singer of a band in the 1980s (although there is certainly a large contingent of them) but because of what they know of him as an actor, a host, a writer, as well as solo performer. His side gigs have taken over from what originally launched him making him the network of Henry Rollins.

¹⁰⁶ Ibid.

¹⁰⁷ The physical body of Rollins is a particularly dynamic site of network connection. Rollins is notorious for the physical intensity of his concert performances as well as his essays extolling the virtues of weight training. In the 1990s, he appeared as an iconic cultural figure in an advertisement for The Gap and is part of the Fall 2016 campaign for Calvin Klein. In both situations, he was not sought as an apt demonstration of the clothing, but as a means for both fashion retailers to draw on the network of Rollins.

A Rollins solo performance is almost always the same, an unconscious echo of the visual stability of Gray's performances. The stage space is vacant, save for two amplifiers on the stage apron aimed upstage center with a single microphone stand between. The physicality Rollins is notorious for is manifest in his ritualistic removal the microphone from its stand, wrapping the excess cord around his left hand two to three times as he begins talking. Once he begins, he does not stop talking until, roughly three hours later, he thanks the audience, wishes them a goodnight and walks off. Rollins is full of coiled, manic energy—something everyone in the audience knows, and something he is aware of us knowing. He uses that knowledge, as the audience waits for the first eruption. Profoundly opinionated and with the punk background, he never hesitates to scream into the mic to make a point.

The tour that brought Rollins to Seattle, WA in November of 2005 stands as an example of his work, in general.¹⁰⁸ At this performance in the Moore Theater, Rollins introduced one of his many anecdotes with “person of dubious notoriety on aisle four.”¹⁰⁹ Describing this encounter, Rollins provides an example of how he sits—perhaps awkwardly—at the center of a larger network because of his own abstract celebrity. His “dubious notoriety” came up in a story where he was recognized in a Wal-Mart somewhere in the Midwest. All the employees of the store line up to have their nametags signed. He makes clear that these people had no idea who he was, aside from being someone on “one of the album covers in the \$4.00 and under bin.” For the audience of his fans, the delicious irony is that in this vast, anonymous Wal-Mart in the middle of America no one knew him for his work as a musician, actor, solo performer or journalist but only

¹⁰⁸ Rollins, Henry. The Moore Theater, Seattle. 12 November 2005. Performance.

¹⁰⁹ Ibid.

for perceived him as a celebrity based on CD for sale in their store. It was an example of a node outside the network.

The task of the audience in Seattle, upon hearing the story, was to link these roles, reinforcing the figure that Rollins creates in the performance—the stage figure of himself. Theorist Michael Quinn expanded the binary construction of the performer and audience in celebrity performance to describe the stage figure, created by both actor and audience.¹¹⁰ The stage figure, as a semiotic signifier, is the “conceptual wedge [...] driven between celebrity and performance, performance and reception.”¹¹¹ Celebrity—based on notoriety and personal information—is the wedge within the wedge of the stage figure (or an extra filter between performer and audience). The celebrity figure then competes with and structures the role of the stage figure. The stage figure of Rollins is psychically funded by Rollins’ actual, lived existence, but ultimately it is a construction that exists primarily through links and association. This figure appears to keep a part of the person of Rollins secure, allowing him to offer up aspects of his personal life up for consumption. It is his celebrity status that registers the interconnectivity of the act of looking in contemporary performance. We are encouraged to look at him, not as an informed fan, but as that anonymous Wal-Mart employee does: someone who has access. They look through his celebrity to, hopefully, reach another figure. In that moment he is doubly coded as unknown and famous, simultaneously existing in two realities. This postmodern double coding emphasizes interconnection within the act of looking, through recognition. Rollins’

¹¹⁰ Quinn, Michael L. “Celebrity and the Semiotics of Acting.” *New Theatre Quarterly* 6 (1990): 154–161. Print.

Quinn’s 1990 essay, *Celebrity and the Semiotics of Acting*, theorizes how the nebulous qualities of fame are superimposed on the body of the performer to effect the audience reception of and interaction with character in narrative drama. A celebrity “resists social dissolution, the conflict of different presentations of self [...] as they resist reduction of their acts to referential aesthetic signs.”

¹¹¹ Ibid.

anecdote shows how his fame works to construct the stage figure of himself—a figure operating as a node within an even larger network of celebrity.

Theatre historian and theorist Joseph Roach discusses the major component that drives the networked qualities of celebrity in his 2007 book, *It*. Expanding on the usage of the term popularized in 1927 by Elinor Glyn, Roach describes *It* as the defining quality that comprises celebrity. *It* is the “certain quality, easy to perceive but hard to define” that is “possessed by abnormally interesting people” and is the “precondition” of celebrity.¹¹² *It* contains an aesthetic element that “constructs itself in the imaginative space inspired by the performer but ratified and amplified by the audience.”¹¹³ *It* is required for the performer to hold and maintain the attention to the audience, but *It* is not endowed solely by the audience or generated from the performer. In a sense, *It* exists within the performer and the stage figure—but is received by the audience, who uses *It* to reinforce both the stage figure and performer. Roach describes *It* as a “resource” that the public can “renew” like a “public trust or utility, like the statuary on courthouses and city halls, but mobile and dynamic, like electricity.”¹¹⁴ That sense of public renewal is most important, for without it, *It* is static. With the renewal, the dynamism helps generate celebrity.

Roach identifies two sets of contradictory qualities that comprise the dialectic of “It.” Rollins embodies the secondary set, “the attributes of strength and vulnerability linked to the technical devices of projection and introspection.”¹¹⁵ The first two components are psychological

¹¹² Roach, Joseph R. *It*. University of Michigan Press, 2007. Print. 1.

¹¹³ Joseph Roach. “It.” *Theatre Journal* 56.4 (2004): 555–568. Print. 560.

¹¹⁴ *Ibid*, 562.

¹¹⁵ *Ibid*, 566.

or physical characteristics “prior to the expression in performance.”¹¹⁶ The “technical devices” are the method of application to try on audiences. Roach demonstrates that the linked qualities of strength and vulnerability have a “long history.”¹¹⁷ It is a dichotomy that leaves an “emotional trace” in every action of the performer.¹¹⁸ Rollins demonstrates his strengths and vulnerabilities within performance by sharing the intimate details of his life. The technical application projects him outward while simultaneously drawing inward. He shares not just what his home looks like, but how he feels within it, how he feels within himself, about relationships with the people he is describing. These are a combination of exultation and depression, as he surfs his emotional highs and lows. It is an incredibly dynamic action. Using Roach’s terms, Rollins’ eyes “focus both outward and inward because there is much of importance to be seen in each direction, and the audience members know it.”¹¹⁹ Again, this involvement with the audience is key. Rollins’ actions within his performance may utilize *It* to create and reinforce the stage figure of himself, but his celebrity will not reattach to him without the participation of the audience. Roach touches on the deep ambivalence surrounding *It*, for both consumers and the people who possess *It*. Roach argues that “[performers] with ‘It’”—the precondition of celebrity—“are not merely there *for* us; they are there *instead* of us.”¹²⁰ The audience receives a benefit from the transaction—we live vicariously along with the performer, and see through the stage figure. This experience of seeing through and its interconnected potential is clearest when Rollins tells stories about his own encounters with celebrity.

¹¹⁶ Ibid, 561.

¹¹⁷ Ibid.

¹¹⁸ Ibid.

¹¹⁹ Ibid, 567.

¹²⁰ Ibid, 568.

When Rollins tells his rock ‘n’ roll stories that focus on people more famous than he is, he gives the audience a sense that they are getting a backstage pass to the elite rock world that he can move in. This differs in tone and approach from Gray’s referencing. While Gray may be incredulous that he has landed in a film and struggles with his capacity as an actor, he is still a part of the material. For Rollins, he makes clear that he may be participating but he is on the side of the fan, the person watching. His sharing of material is a means for us to look through him and see what he has been gifted with seeing. These stories are the highlights of the talking shows for most fans. Not only do we sit in the presence of celebrity, but that celebrity will get us in close proximity to others, extending our vision through the virtual network. In many ways, Rollins is the ultimate fan, and will gladly admit it. His manic glee and reverence at describing his meeting people whom he considers celebrities is not only engaging to watch and listen to, but allows the audience the freedom to be fans alongside him, standing next to him rather than sitting at his feet. But what has been happening to rock ‘n’ roll figures of Rollins’ and his fan’s generation has subverted the joy of a rock story into something more resonant. Quite simply, those stars are dying and Rollins’ stories are now more about their passing and his relationship to it. Rollins becomes a site of recollection for an audience that may never have had a chance to personally encounter these performers.

To give them that encounter, Rollins uses the techniques of tangential storytelling to encourage audience engagement so the performers live again within the space and time of one talking show. Employing the technique Marvin Carlson calls postmodern citation of specific music as referents for the audience, whereby their memories of the music and performances are the means to directly identify with the experience Rollins shares, all while reflecting back onto

Rollins.¹²¹ Rollins constructs a search portal and uses postmodern citation to send the audience on a search through the network. At the 2005 Seattle show, the rock story was announced, “So, you’ve all heard that Johnny Ramone, of the Ramones, died in September.”¹²² Rollins establishes that our subject is gone, but his very next statement is, “about a week before he died I was over at his house visiting him.” Rollins uses the aesthetic element contained in *It* that “constructs itself in the imaginative space inspired by the performer but ratified and amplified by the audience.”¹²³ In a single line, Johnny Ramone brought back to life through Rollins’ account, for us. The story is rich in detail in order to fill the space of memory with an overwhelming presence of the Ramones. Rollins, just famous enough to be sought by someone he refers to as “a master,” describes sitting with the ill and old-looking Johnny, a shadow of the scrawny, black haired dynamo guitarist, and watching a final cut of the documentary about the Ramones, *End of the Century*. Within this moment we have Rollins bringing Johnny back from the dead for the audience in Seattle, whereby we can accompany Rollins, through memory, to Johnny Ramone’s Los Angeles living room where Rollins and Ramone are watching footage of Johnny twenty years prior. Rollins narrative construction encases three spaces and multiple times within each other like nested bowls. The audience is carried along on Rollins’ recall and encouraged to start coloring the situation with memories that are our individual referents—to the Ramones, Johnny

¹²¹ Carlson, Marvin A. *The Haunted Stage: The Theatre as Memory Machine*. University of Michigan Press, 2003. Print. Carlson defines what he calls “ghosting” as “the identical thing [the audience] have encountered before, although now in a somewhat different context.” For Carlson, postmodern citation, or “the conscious and calculated recycling of material,” is “haunted by memory” but employed with self-conscious irony.

¹²² Johnny Ramone (1948-2004), guitarist and songwriter for seminal New York punk band The Ramones. Working throughout the 1970s and 80s, the music of The Ramones was characterized by Johnny’s distinct guitar style and the frenetic speed of each song. The band was most well-known for the songs “Blitzkrieg Bop,” 1976; “I Wanna Be Sedated,” 1978; “Rock n’ Roll High School,” 1979.

¹²³ Roach, “It,” 562.

Ramones, Los Angeles, Henry Rollins and even, cancer. At the end of their visit, Rollins and Johnny discuss Rollins' participation in The Ramones 30th Anniversary Tribute concert at the Avalon in Los Angeles, CA on 12 September 2005. Rollins informs the audience that, at a loss for what to say that would not be maudlin, he firmly held Johnny's shoulder and said, "I'll see you later, young man" with a promise to call in the following week.

The second component of the story deals with the Ramones tribute concert. Mimicking the energy of the concert, the rhythm of his speech picks up, and his physical energy increases palpably. The concert was held as a benefit to raise money for cancer research and was an "all-star" line up of groups doing covers of Ramones' songs. To describe the event, Rollins began listing off participants that included some of the biggest names in contemporary rock music as well as some indie rock idols—both the very famous and the very famous to a chosen few. As Rollins laid out the concert in detail, describing which bands played which songs, he invited the audience into the spatio-temporal dimension of the concert, and encouraged them to create a "trans-temporal, trans-spatial" environment that relied on their personal associations with the music, demonstrating the theory of ghosting described by Marvin Carlson.¹²⁴ Carlson's "identical thing" that the audience has "encountered before" is the specific song Rollins uses. Referring to that song in a talking-show story about a concert places it into Carlson's "somewhat different context"—the song "ghosts" itself in this new context, changing the sign into a new signifier. The scenario is deceptively simple: Rollins would tell us that the Red Hot Chili Peppers

¹²⁴Dr. Jeanmarie Higgins, "Re: Now I have a real question..." Email to the author. (December 2005). I am indebted to my colleague and friend Dr. Higgins for providing the chance to exchange ideas and work out the mechanics of this analysis, without my having to explain who any of the bands or figures were.

did an “amazing” cover of “I Wanna Be Sedated.”¹²⁵ The fact that he specifies the songs is critical—in describing the inherent challenge in discussing music in *Grain of the Voice* Roland Barthes declares that we “condemned to the adjective.”¹²⁶ For Rollins, the adjective is what we seek because of its associative properties that carry the audience from the space of the performance into the virtual space of connection. The audience, already in the spatial and temporal dimension of the concert, then mines their associations with the Chili Peppers as well as their associations with the song, “I Wanna Be Sedated”—by utilizing a common referent to access the memories of the audience, Rollins creates a common point of knowledge for everyone. Theorist Jeanmarie Higgins clarifies that “Rollins refers to [“I Wanna Be Sedated”] and in that moment, we all coexist.”¹²⁷ Rollins signifies “many spatio-temporal dimensions on a single stage” through a common reference point.¹²⁸ This evocation of memory, nostalgia and fame “provides a space for the audience to ‘know’ fame, if only for a moment.”¹²⁹ Effectively, Rollins creates a series of new networks and nodal points, via the audience.

As Carlson offers, “the memory of each individual is also subject to continual adjustment and modifications as the memory is recalled in new circumstances and contexts.”¹³⁰ The story depends on the audience’s recall. At the same time, the story becomes part of a new memory

¹²⁵ The Red Hot Chili Peppers are a rock band originating from Southern California in the 1980s. The band’s guitar driven hard rock sound is strongly influenced by funk, psychedelic rock and punk. Their first album debuted in 1984, but their albums from 1989, *Mother’s Milk*, and 1991, *Blood Sugar Sex Magik*, brought the band widespread fame.

¹²⁶ Barthes, Roland, and Stephen Heath. *Image-Music-Text*. Macmillan, 1978. Print. 180.

¹²⁷ Higgins, Ibid.

¹²⁸ Ibid.

¹²⁹ Ibid.

¹³⁰ Carlson, 2.

linked to both the song and performers. Carlson calls this a “hallmark of postmodern expression.”¹³¹ Rollins’ “conscious and calculated recycling of material” is a form of citation to connect to cultural memory.¹³² Rollins telling of the event opens the audience to him—not only can we co-exist and know fame, but Rollins’ own fame is reinforced by a permanent link in the minds of all the audience between him, the Ramones and the audience’s memories of the music.

The final third of Rollins’ Johnny Ramone story brings both the audience and Rollins back to our actual, and respective, spatio-temporal dimensions in the Moore theatre. He describes his elation at the concert and coming down from the emotions surrounding it. At the same time, he tells of the ongoing “harassment” by his assistant, Heidi May. “I have Heidi, The Voice, next to me [screaming] “AREN’T YOU SUPPOSED TO CALL JOHNNY?” The humor catches the audience off-guard, so when he describes getting a phone call from the disc jockey who brought them together in the first place—“I just wanted to let you know before the news gets out that Johnny died yesterday”—we experience the same kind of disappointing shock as Rollins. In that moment the audience, begins to separate from the high of co-existence because we did not get the news first, even though we get the chance to re-live that moment of “where were you when you heard” through Rollins. Rollins brings us back into ourselves, giving details of Johnny’s passing, but nothing more elaborate than what any of the wider media reported. He began with the announcement of Johnny’s death, and now repeats the event, relocating the audience at the information point at which they began the search.

Rollins’ decision to mine his own life, his own celebrity is deliberate. He depicts this access as the positive side to fame, to success—not the fame itself, but the access to other

¹³¹ Ibid, 14.

¹³² Ibid.

famous people that he's interested in. Throughout his work, Rollins takes the notion of celebrity, uses it to further cement his own status and then, with the freedom only granted to the celebrity, discards fame as the hollow, constructed reality it is. Rollins' version of autobiographical solo performance captures the how we navigate the virtual network. A critical element of Rollins solo performance work is his drive to see and bear witness, manifest in his drive to travel. Driven by an insatiable curiosity about the world and coupled with his sense of mortality, Rollins' argues that "[w]hen you stop wanting to find out, you're done."¹³³ A self-described workaholic, Rollins works as a means to see more. Operating as something between tourist and journalist, Rollins "beg[s] young people to travel" because it transforms the act of looking through curiosity. For his autobiographical solo performances, his description of his experiences serves to reinforce this emphasis on movement and looking. Rollins is a tool to look through, not an answer to the question.

His technique highlights the peculiar dichotomy of the networked gaze its densely interconnected mobility. Regarding his talking shows, Rollins offers "I like the engagement with the audience, but I could probably survive without it [...] It's just something I've been doing for years, and the truth is, I like these people. Weird as it might be, I do have some sort of relationship with them. They talk to me, and I talk back—they write to me, and I write back."¹³⁴ Rollins recognizes his ongoing connection to the audience, his emphasis on the exchange allows us to consider how the audience is looking with and through him.

¹³³ Rollins, Henry. "SSU Commencement 2009 :: Henry Rollins Speech." *Sonoma State University*. N.p., 23 May 2009. Web.

¹³⁴ Goggins, Joe. "Henry Rollins on Touring, Spoken Word & Nostalgia: The Skinny." *The Skinny: Independent, Cultural, Journalism*. N.p., 8 Jan. 2016. Web.

The Thing that Gets Us to the Thing

The computer isn't the thing. The computer's the thing that gets us to the thing.

“I/O”¹³⁵

The personal computer, the Internet, the Web, postmodernism and autobiographical solo performance in the Information Age are a nexus of technologies that create the networked act of looking. Playing on the quality of indexicality inherent within each form, these individual technologies become components of a larger form as we moved from the concrete Digital Revolution into a period defined by the immaterial concept of information.

In relation to theater history, the form of autobiographical solo performance developed by Gray and extended by artists like Rollins and Lockyer, is a materialization of that indexical, networked act of looking within performance. The pieces all construct a virtual space, built on association. These interconnected qualities of the visual, of movement and association are inherently unstable and function together to draw the audience into the joint construction of a metaphorical third space, the virtual. Conscious narrative disorganization is a dramaturgical tactic designed to draw audience and performer closer and direct their gaze to an interior, virtual space where the associative function dominates. These structures are most clearly seen in the form of autobiographical solo performance.

All of the narratives explored here concern people trying to understand, to see the totality of something—a theme Gray continually returns to. Their autobiographical solo performances are not the thing itself, but what gets us to the thing, as quoted above. Returning to the near present moment, and the context of narrative drama, the epigram above comes from the pilot of the 2014 television period drama, *Halt and Catch Fire*. The main character, consummate

¹³⁵ “I/O.” *Halt and Catch Fire*. AMC. 1 June 2014. Television. *Netflix*. Web. 6 July 2015.

salesman Joe MacMillan (Lee Pace), uses that line to beguile technician Gordon Clark (Scoot McNairy) into reverse engineering an IBM word processor by shattering the near mythical hold the hardware of the IBM has over the frustrated developer. Set in the “Silicon Prairie” of Texas in 1983, the characters work for a thinly fictionalized version of the Compaq Computer Corporation, a Digital Revolution leader that brought affordable personal computers into the homes of millions in the United States. What the character of MacMillan recognizes and demonstrates in his line of dialogue is that the affordable personal computer is a necessary means to a more critical end—the networking of information. His argument encourages Clark to re-envision the notion of what the technology can do.

In the historical fiction of 1983—framed and presented in 2014—of course, MacMillan is a character with near magical prescience on the role that personal computers would play. That visionary quality is a dramaturgical tactic in the construction of the character, as the dramatic action of the series centers MacMillan’s dynamism. This brief exchange, with its playful awareness of the audience’s knowledge, materializes the networked act of looking. Set in the past, presented in the contemporary moment, accessible through a variety of formats, and highly aware of its constructed, viewable, historical components, the television show becomes a node in the associative pool of information that a viewer must navigate through.

The fictionalized world of *Halt and Catch Fire* is not far away from Ken Olson’s infamous 1977 misstep, cited above. The jump Olson could not envision, but the fictional character of Joe MacMillan could was that a personal computer was not about the computer—the object most developers focused on during the twentieth-century—but the computer’s ability to connect. In the moment of performance, MacMillan’s allusion to the nascent Web takes the audience out of the dramatized past and returns them to themselves in whatever future they

inhabit. Dramaturgically, it endows the audience with narrative authority by encouraging them to look at two time-spaces simultaneously.

Halt and Catch Fire dramatizes how, through the development of hardware and software technology, the personal computer came to be both a tool not just for data management but as a tool for looking, both personal and public. In the span of writing the previous paragraphs, I needed to confirm the year *Halt and Catch Fire* premiered—a simple web search gave me the exact day and location of that premiere, along with Neilson figures and critical ratings. I can verify the specific piece of dialogue, via a Web search of the sentence fragment “The computer isn’t the thing.” Or, by accessing a streaming video service legally (Netflix or Amazon.com), or less legally (BitTorrent), to watch the exact moment from the performance and describe it. I can do this in my home, in a cafe, or in my car waiting to pick up my son and all without having to find a library that might be open. In 2016 I don’t even need a computer and desk anymore—I can do it on my wireless enabled cellular phone. I, as a user, embody MacMillan’s nebulous “thing.” It is a moment that echoes of the conscious citation and plurality of the postmodern. As a user I am not defined by one specific reception location or medium, creating new meaning for content placed in unintended relations. In that moment I am simultaneously creator and consumer, operating outside the boundaries of defined presentation and reception spaces and times. Postmodernist citation and plurality are indexical states—not the thing but referencing the thing. In this manner, the autobiographical solo performances of Lockyer, Rollins and Gray reinforce that state of the indexical in relation to narrative dramatic theatre. The form of solo performance digitized narrative drama, but the autobiographical performers’ emphasis on the indexical in their dramaturgical structure networks the information, transforming the act of looking. Their performances materialize their attempts to organize and map their experiences; to see the totality.

As Gray offers, his are stories “impossible to tell” made legible by the networked gaze of the audience.

Conclusion: Seeing as They Did

It is the framework which changes with each new technology and not just the picture within the frame.

Marshall McLuhan¹

In the summer of 2016 my sixty-eight-year-old father, my eight-year-old-son, and my forty-two-year-old self drove into San Francisco, CA to visit the California Academy of Sciences—a combination natural history museum and aquarium in the heart of Golden Gate Park. This multigenerational outing was a treat for both my kid, who loves all things fish, and his amateur naturalist grandfather. I had grown up with the Academy, but had not seen its recently renovated form. I negotiated the mass of my fellow visitors, navigating a crowded space within an equally crowded city that was at once familiar and new. Perhaps because the re-designed space appeared so different to me or perhaps because I was managing the needs of both a fast moving child and his slightly slower grandparent—or even, because the act of looking has been my scholarly pursuit for so long—my visual awareness was heightened. Once inside the Academy, all I could see were video screens—next to exhibits, hanging above entry arches, offering extra display space, or just broadcasting ticket prices.

Two things became rapidly apparent: the new design of the museum was focused entirely on the herds of “digital natives” swarming through it and those natives, accompanied by their “digital immigrant” families, appeared bent on experiencing the world of the museum through an electronic, visual filter. In 2008—the same year my son was born—legal scholars and theorists of

¹ McLuhan, Marshall. *The Essential McLuhan*. Ed. Frank Zingrone and Eric McLuhan. 1st edition. New York, NY: Basic Books, 1996. Print. 273.

emerging digital technology John Gorham Palfrey and Urs Gasser defined a “Digital Native” as a person for whom “[m]ajor aspects of their lives—social interactions, friendships, civic activities—are mediated by digital technologies.”² Palfrey and Gasser observe that for a digital native “new digital technologies” are “primary mediators of human-to-human connections,” situating their narrative as McLuhanian in the assumption that technology shapes representation and user.³ In contrast, the “Digital Immigrants” tend to be from earlier generations—although the implicit ageism is mitigated by the authors’ description of “Digital Settlers” who are “not native to the digital environment” but “have helped to shape its contours” and are “often quite sophisticated in their use of these technologies.”⁴ The Immigrants are “less familiar with [the digital] environment” having “learned how to e-mail and use social networks late in life.”⁵ Palfrey and Gasser’s descriptions rest on their claim that “[n]o major aspect of modern life is untouched by the way many of us now use information technologies.”⁶ And those technologies are “transforming human relationships in fundamental ways.”⁷ Within their description of the shifting terrain of contemporary technological interaction there is a hint of ambivalence, even fear. It echoes the technological anxiety that can be documented going back to Plato’s concerns about the effect the new technology of writing will have on the human memory.

² Palfrey, John Gorham, and Urs Gasser. *Born Digital: Understanding the First Generation of Digital Natives*. Basic Books, 2013. Print. 2.

³ Ibid, 5.

⁴ Ibid, 4.

⁵ Ibid.

⁶ Ibid, 3.

⁷ Ibid, 5.

Neither a native, nor an immigrant, I embody Palfrey and Gasser's Digital Settler—able to remember life before the personal computer—and yet I am hardly a Luddite.⁸ I began working on computer screens as a young teenager and progressed to a life of multiple electronic devices, including a relatively new iPhone, forever stowed in my pocket, ready to capture images on what has become my default camera. On our visit to the Cal Academy, it was at the ready and in my hands to catch moments of my son and his grandfather, engaged in the act of looking. My eyes were primed to capture the first glance in all of its iterations. A museum—particularly a natural history museum with living exhibits—is already a peculiar space of heightened and interactive looking. It is filled with bodies, all come to bear witness—to look at—the things living and existing in this space. It is a space, much like a theater, where, for the audience, the purpose is to look at.⁹ Not necessarily to see, but to engage in the act of looking.

My son, the digital native, reinforced this. A major component of the re-design of the Cal Academy has been the inclusion of more interactive displays, particularly in the area of wall texts. Touchscreens replaced what I remembered as individual wall plaques or flip cards at the side of most displays. My son would run to a tank display, locate the touchscreen and proceed to scroll rapidly through the pages on it, checking for where the corresponding animal was in a

⁸ An English labor movement of the late Eighteenth and early nineteenth centuries, noted for their destruction of weaving machinery as a form of protest. This group of textile workers and weavers were not attempting to halt the progress of technology—or acting out of a fear of technology—but saw the destruction of machinery as a means to oppose the managerial abuse of standard labor practices of the era. The name is based on near-mythical progenitor, apprentice Ned Ludd, who was supposed to have destroyed mechanical knitting machines in 1779. Beginning in Nottingham, the movement resulted in a large-scale rebellion lasting from 1811-1816. The contemporary usage of Luddite draws on the misconception regarding the movement's purpose—a contemporary Luddite is one who opposes technology itself, even expressing a kind of technophobia.

⁹ The etymology of the word *theater* is rooted in the space as a hearing place. Narratives of early western theatre history valorise the word over the image, particularly since we have words but few images. In this analysis, I am eager to recognize that performance is, and has always been, about the visual as much as the oral and aural.

display to inform me of what it ate, then move onto the next one. When he finished the content of the screen, he was done with the display, and moved on. My father, sixty years older, ignored the screens almost entirely, preferring to investigate at the displays themselves. He would only consult the screen if curious about a specific element or animal, but mostly ambled after his grandson.

The peculiar closed compound word *touchscreen*, on one hand, clearly describes a piece of contemporary technology—a screen that responds to touch. But the echo of a command to *touch the screen!* resides within. *Touch* and *screen* contradict each other as one emphasizes tangibility and direct contact with the material world and the other term evokes indirectness and separation. A screen, as a surface to look at, where things—usually images—are displayed is also a way to hide from view, to separate. With the inclusion of powerful cameras in most mobile phones and tablet computers, we are able to capture images representing our lived experiences and begin interacting with them through touch manipulation almost instantaneously. This interaction appears partly responsible for the dynamic integration of the term into our culture. There is something oxymoronic about the term and yet it is the way most digital natives will interact with the world. Palfrey and Gasser's observation that technology mediates human-to-human interaction for the digital native connects the touchscreens of the museum with a new act of looking—one that exposes the degree to which digital natives, immigrants, and even settlers, appear to require technology as a filter of their direct experience of something.

So there I was, in a space designed to provide live, visual interaction and exposure to things that most people will never see anywhere else. But beyond the wall text and display screens, what I really saw were the camera phones. At one point we gathered in front of an octopus tank while the cephalopod was being fed. I watched for fifteen minutes as the animal

moved around the tank, shifting shape and changing color. It was an utterly captivating display of the natural world afforded to me, the non-scuba diver. The animal inserted itself into a clear glass jar within the tank and I watched as the chromophores in the skin began to flutter and pulse with color and pattern in an attempt to mimic clear glass—it was working to blend in with the background that the watchers outside the tank would see from their perspective, looking through the glass. Other museum patrons ebbed and flowed around me, most with their phones out, often snapping pictures before stopping to register what was actually in the tank. More than once a fellow patron arrived on one side of the display, snapped a picture with the phone, then looked at the signage to determine what they had just photographed—occasionally snapping more images once they knew what they were capturing. It appeared as if whatever they were seeing could not be fully registered unless the technology filtered it first. The act of looking, via a piece of technology, concretized the lived experience. Was this a degradation of the experience of the museum? What had happened to the presence and lived experience of the act of looking? My father—a Baby Boomer and digital immigrant—might argue yes. As theorist Sarah Bay-Cheng observes, so does director Anne Bogart. In her contribution to *Theater Historiography: Critical Interventions* Bay-Cheng cites Bogart’s 2008 blog post, documenting her “trouble[d]” reaction to witnessing a similar deployment of the camera phone in an art museum.¹⁰ What concerns Bogart is the distance from the present moment, somehow materialized by the technology being wielded by the patrons. Bay-Cheng points out that part of Bogart’s objection is, in fact, to “the viewer’s experience of the artwork on the viewer’s own terms.”¹¹ But those terms are an embodiment of

¹⁰ Bial, Henry, and Scott Magelssen. “Theater History and Digital Historiography.” *Theater Historiography: Critical Interventions*. Ann Arbor: University of Michigan Press, 2010. Print.

¹¹ *Ibid*, 125.

the tactician moving through de Certeau's map, navigating around or against the structures of the museum via technology. Bay-Cheng offers that "the echoes of the digital as it becomes assumed into daily life" shape the act of looking into one that embraces the distinctiveness of digital technology as a means to capture ephemeral experiences.¹² My son, the digital native, cannot conceive of anything other than this reality. Myself, I straddle the eras. I see both sides, but neither one clearly, instead caught by the act of looking itself.

Movement of the Eye

Over the course of this study, I have theorized that the dialectical relationship between the act of looking, performance, and emerging technologies allows me to track the cultural saturation of a given technology. Rather than a focus on perception—moving into speculation on what an audience saw—I am interested in how their attention might have been directed. On this mechanical, rather than cognitive, level I find firmer ground. Cognition is too fluid, too subjective. Where our attention is directed in the performance, less so. Whether the audience looks there, I cannot say and feels, to me, rather beside the point. It might allow me to judge the herds of fellow tourists outside the octopus tank for their choices but does not reveal the more complex interrelations between body, space, culture, and object.

We are the component that confounds and troubles every technological advance we make. Our insistence on separating components of our lives generates false boundaries, supposedly defined by function. How a technology works—or is supposed to work—is not a definition of the technology. In the same way, a piece of art is not simply defined by aesthetics. If we take the definition of technology to be an expansive one, evoking Peggy Phelan, then we must also take the definition of art to be one as well. Theater exists in a space that combines both. Or, has the

¹² Ibid, 129.

potential to combine both. Performance provides both a space in which to experiment and a means to register the interaction. In the case studies above, I have attempted to lay out how the problems of technology were dealt with at a personal level through an analysis of how the act of looking was focused and highlighted dramaturgically in the Restoration, automated and amplified into mobility in the nineteenth-century, and finally, how the act of looking straddles the public/private divide, challenging the subject positions of audience and performer in the late twentieth and early twenty-first centuries. These periods of study are unified not only for the shifts in the act of looking, but through their socio-cultural construction scientific and technological revolutions.

Within the English Restoration, the scopophilic drive of the culture is shown in one of the most visible structures for culture building, the public theater. The concentrated population of theatergoers and natural philosophers, encouraged by Charles II, operated under his metaphorical eye within the playing space. The return of public theater, coupled with the development of newer, indoor playing spaces and rise of the actress serve as tools to emphasize the act of looking within the culture at large. The intensely public, yet equally personal conversations contained in the theatrical prologues of the period echo the attention to detail and focus of the leading diarists of the same period. While Robert Hooke called for divine revenge upon seeing his life and work parodied within *The Virtuoso*, that play's use of science and technology as prop and punchline show it to be a less accurate register of the scopophilia of Restoration London. Shadwell's comedy is a broad glance, without focus or depth to reveal the true nature of things, as Hooke sought to do with *Micrographia*. By comparison, Etheredge's *Man of Mode* is a carefully constructed performance of dramaturgical magnification and framing. The near obsession with the act of looking within the play reveals a cultural emphasis on the transaction between object

and observer.

Reaching far ahead to the late nineteenth-century United States, the analysis of a nearly forgotten stage melodrama—*The Great Train Robbery*—and the theatrical apparatus surrounding it shows how the act of looking was shaped by the automation and amplification of the steam driven passenger locomotive. The reshaping of the act of looking into one that was mobile, through the access to the experience of riding on a steam locomotive, primed the population for the arrival of film. The traveling, spectacular melodramas of the period further encouraged audiences to expect new volumes of action in a visually dynamic world. In the publicity stunt between Thomas Edison and Sarah Bernhardt provides a nexus that brings together the components of this mobile act of looking. The new emphasis on the spectacular shifts the dramaturgical construction away from dialogue directing the gaze to one where the audience must become the engine of movement, echoing the cultural autonomy brought about by railway technology.

The Digital Revolution and Information Age sits one hundred years after the birth of film, but conceptually it spans over the nineteenth-century and reaches back towards the scopophilia of the Restoration. The birth of the personal computer and rise of networked communications parallels the rise of the postmodern aesthetic. Postmodernism's focus on the visual, but calling attention to the constructed-ness of art objects, emphasizes an act of looking that requires both the scopophilic and the mobile. It is an era of performance that relies on disruption of all narratives, in search of an audience-centered experience. Phillip Auslander's argument that the postmodern is defined by a kind of pluralist drive is balanced by Bonnie Marranca's theory of the postmodern as a "theater of images."¹³ Elinor Fuchs, in the midst of the period, brings the

¹³ Marranca, x.

world of technology and performance together in her analogy of theater as window/theater as screen. The postmodern shifts authorial emphasis from the watched to the watcher, as they write their own narratives through association on the screen of the performance. The act of looking of the Information age is networked—simultaneously mobile and virtual, the act of looking is constructed in the imaginary space between audience and performance. Within the Digital Revolution/Information Age the rise of the form of autobiographical solo performance highlights the dominance of the act of looking because of dramaturgical technique that requires the audience to construct associative relations.

This is a scopophilia akin to the Restoration but on a different register of scale. The late nineteenth-century is attuned to the act of looking, and evidence a joy in the act of looking manifest in the use of disguise and turnings in Marble's play, as well as the dance hall scene and the final shot of Porter's film. But the nineteenth-century scopophilia is one highlighted by both Edison and Bernhardt's narratives: rather than detail, this act of looking is driven by action and mobility. This is a love of looking that empowers across class lines, even plays towards a kind of working class with middle class sensibilities. While the microscope allowed the Restoration viewer to interrogate the authority of the visible, the railways system automates and amplifies the act of looking to focus on the quality of looking rather than the content. To hopelessly mix metaphors and sensory organs, the nineteenth-century turns up the volume on the act of looking by privileging dramatic action and the emphasis on physical action. Eliminating the recursive self-reflection of the Restoration stage results in a mobile theater, in terms of dramatic action, stage representation and physical access. The work of the autobiographical solo performances of the late twentieth and early twenty-first-century then increases the distribution of the signal, drawing on the mobility of the nineteenth-century.

Reflecting on the process of this research, I began with concurrent obsessions in how the gaze was directed in performance and the minutiae of technology. At my most glib, I will claim that I do all of this work just because I find gadgets interesting, or that science and art should be better friends. And, it seems a tortured path to direct everything back to the act of looking. In some ways it's born simply out of a desire to understand why it seemed like every conversation in *Man of Mode* was about looking—not seeing, not the visual, but the act of directing the eye to a specific person, place or thing. Because we “cannot see as they did” all comments relating to perceptual understanding of the visual are virtually meaningless.¹⁴ Phenomenological study is relevant to the extent that it reveals how historicized, how constructed the visual faculty is. My examination on the act of looking within these three periods, shaped by these technologies reveals that the power lies not in content but in form. Consider that technologies materially shape our lives, just as they shape narrative structure, as I argue here. The real power to shape narratives—of influence, modernity, the public and private—outside of the theater is modeled within the space of performance. If the performance shapes how an audience engages with material, via the technologically framed act of looking, then their relationship to the material is functionally altered. The dramatic literature and performance within these historical eras of technological revolution, those which don't require a shift in the act of looking, re-inscribes that work as of the past.

To this end, I employ a New Historicist methodology because it suits my materialist leanings as well as my love of a good story. Much like my pisciphile, digital native son, born as I started writing and now finishing second grade, the whole process has expanded exponentially in a number of critical directions. But this work embraces Patricia Fumerton's “new New

¹⁴ Solnit, 21.

Historicist methodology” with its focus on both technology and popular performance. My love of a story is a means to rethink “the strange in terms of the everyday.” At its core, the New Historicist historiography takes on the micro-historical in order to engage in an expansive discourse on macro-history. Analogy is key, but a key is a tool, not the action of unlocking. The placement of these microhistories in relationship, through interpretation, unlocked far more expansive observations about the interrelated role of technology and performance during major social revolutions. It is one thing to say or accept that the scientific, industrial or digital revolutions profoundly changed our cultures, or to even identify specific objects of that transformation. What I have shown is the motion of interrelationship between these components. The act of looking is revelatory, but it is functionally a means of narrowing the field of data. The dominance of the visual in representational practice and narratives is a relatively easy means to track or monitor the slippery field of perception. The chapters of this study move from the most concrete technological form to the most abstract. Starting with the microscope and moving to the World Wide Web moves us from a tangible material instrument to a conceptual one, both with the same goal: look through here and see a whole new world. Whereas the act of looking in the Restoration is defined by objects, the further we progress in time, the more looking is defined by practice...which, of course, it always has been. The microscope, train and computer affect our gaze, but they develop a practice that directs it. This structure develops a groundwork for examining the relationship of technology and performance in a material, phenomenological way.

Looking Forward

I encourage colleagues within the fields of theater history, dramatic criticism, performance studies and the history of science and technology to pursue this type of research within other fields of representation and experience, as well as other technologies and periods of

history. While this study has focused on the act of looking, the aural faculty has, throughout my own research, proven to be a rich and dynamic area of analogous and metaphoric—as well as representationally based—presentation. The role of listening, hearing, and sound as a register of the technological shifts of history can contribute vitally to a broad conversation on the interrelationship between the arts and technology.

This is, perhaps, what my larger goal is: to encourage historians and theorists and practitioners to resist using science or technology as a means to decorate or as an attempt to legitimize performance. In the same vein, scientists and engineers should resist a false nod to interdisciplinarity with a thin layer of the work of the visual or performing artist. My call is for engineers and artists to work in concert towards a Geertzian thick description of the world. Technologies are devised by a culture in response to that culture. The apparent similarities of devices across time matter, but can turn technology into a universalizing and reductive monolith. The differences between the arts and science and engineering appears more and more to be a result of a lack of curiosity fostered by abstract bureaucracy, rather than any kind of disciplinary blindness. Technology and performance are not mutually exclusive practices. Developing a means to examine how technological development and the sciences is in continued discourse with theater beyond the obvious technological achievements (or, in a close examination of them) promotes an inherently interdisciplinary practice. It allows for an expansive notion of representational practice.

I would be remiss if I did not return to a discussion of the current socio-cultural trend towards the so-called S.T.E.M subjects—Science, Technology, Engineering, Math—I began in the Introduction. The pendulum of popular educational practice will return towards the arts and humanities at some point, but in our contemporary sphere the discourse of technology has been a

popular way to gain attention and money. The United States Department of Education, during the terms of President Barack H. Obama (2008-2016), set a priority of increasing the numbers of students and teachers proficient in these fields. According to the Department, “within a decade, American students must ‘move from the middle to the top of the pack in science and math.’”¹⁵ This political rhetoric is based on the data that American students do poorly when tested on these subjects, boding ill for a future where some claim that at least one million more S.T.E.M proficient workers will be needed by 2020. In contrast, Robert N. Charette, writing in 2013, observes that there are “simultaneous claims of both a shortage and a surplus of S.T.E.M workers.”¹⁶ For Charette, this debate began “more than a half century ago” and was “perpetuated” by “societal, economic, and nationalistic biases.”¹⁷ “There is indeed a STEM crisis—just not the one everyone’s talking about. The real STEM crisis is one of literacy: the fact that today’s students are not receiving a solid grounding in science, math, and engineering.”¹⁸ Broadcast journalist and popular nonfiction writer Fareed Zakaria, writing an Op-Ed in the Washington Post in 2015 takes Charette’s assertion further, arguing that the “dismissal of broad-based learning” arises from a “fundamental misreading of the facts” that “[a] broad general

¹⁵ “Science, Technology, Engineering and Math: Education for Global Leadership | U.S. Department of Education.” N.p., n.d. Web.

¹⁶ Charette, Robert N. “The STEM Crisis Is a Myth.” *IEEE Spectrum: Technology, Engineering, and Science News*. N.p., 30 Aug. 2013. Web.

¹⁷ Ibid.

¹⁸ For additional discussion on the crisis versus surplus debate:
 C, Xue, Yi;Larson,Richard. “STEM Crisis or STEM Surplus? Yes and Yes : Monthly Labor Review: U.S. Bureau of Labor Statistics.” N.p., May 2015. Web.
 Teitelbaum, Michael S. “The Myth of the Science and Engineering Shortage.” *The Atlantic* 19 Mar. 2014. *The Atlantic*. Web.
 Zinshteyn, Mikhail. “The Reality of Coding Classes.” *The Atlantic* 1 Feb. 2016. *The Atlantic*. Web. 6 Apr. 2017.

education helps foster critical thinking and creativity” and “[e]xposure to a variety of fields produces synergy and cross fertilization.”¹⁹ Zakaria’s assertion that “[i]nnovation is not simply a technical matter but rather one of understanding how people and societies work” speaks to my position that technology and performance can—and do—function in an indexical relationship to one another.²⁰ Occasionally, if we are lucky, the S.T.E.M proponents will throw Art into the mix. It is as a nod toward the interdisciplinary and the liberal education Zakaria champions. With the addition of Art, the acronym that originally implied a spine or stable center while evoking the urgent necessity within our culture, becomes gaseous—S.T.E.A.M. It is an unintentional and delicious evocation of the mechanistic Industrial Revolution a S.T.E.M focused world is supposed to move us away from. For me, it is the difference between Shadwell and Etherege, represented by *The Virtuoso*. Etherege’s play registers a trend within the culture, a pattern of behaviors that points toward technology of the period. Shadwell capitalizes on the fad of fashionable scientists, at the expense of genuine comprehension or integration, creating a surface level reading of the culture that does not reflect the indexical shaping between performance and technology, shown through the act of looking.

The successes or failures of S.T.E.M education and forced interdisciplinary collaboration, much like perception, is ultimately unknowable and well beyond the scope of this project. In the end, I return to Rebecca Solnit’s assertion that “[w]e see much they did not, and can never see as they did.” More accurate to say that we look at much they did not, shaped by the technological revolutions that pervade culture. But through analysis of the act of looking, we may recover the direction of their gaze.

¹⁹ Zakaria, Fareed, and Fareed Zakaria. “Why America’s Obsession with STEM Education Is Dangerous.” *The Washington Post* 26 Mar. 2015. [washingtonpost.com](http://www.washingtonpost.com). Web.

²⁰ Ibid.

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