A Memento of Complexity: The Rhetorics of Memory, Ambience, and Emergence

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A MEMENTO OF COMPLEXITY: THE RHETORICS OF MEMORY, AMBIENCE, AND EMERGENCE

A Dissertation
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy
Rhetorics, Communication, and Information Design

by
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ABSTRACT

Drawing from complexity theory, this dissertation develops a schema of rhetorical memory that exhibits extended characteristics. Scholars traditionally conceptualize memory, the fourth canon in classical rhetoric, as place (loci) or image (phantasm). However, memory resists the traditional loci-phantasm framework and instead emerges from enmeshments of interiority, collectivity, and technology. Emergence considers the dynamics of fundamental parts that generate complex systems and offers a methodological lens to theorizing memory. The resulting construct informs everyday life, which includes interfacing with pervasive computing or sensing familiarity. Further, congruently with a neurological turn that contradicts simplification, this dissertation resituates rhetorical memory as generative to imagination or perception.
ACKNOWLEDGMENTS AND DEDICATION

This work is indebted and dedicated to the kindness of many people. I first thank my wife, best friend, and partner in all things Trisha. Scot Barnett, Meredith McCarroll, Sean Morey, and Steven Holmes offered counsel and encouragement throughout the process for which I remain immensely grateful. For his direction and ministry, I thank and give thanks for Father Michael P. (Mike) Flanagan. I thank my advisor (David Blakesley), committee (Stephanie L. Barczewski, Andrea Feeser, and Victor J. Vitanza) and cohort (Patricia Fancher and Jared Colton) for their generous support. Finally, none of this would have been possible without Dr. Jeicha, who remains an icon for compassionate teaching in my memory.

Any errors in this text are mine alone, for which I assume full responsibility.
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CHAPTER ONE

INTRODUCTION

Here obviously is a strategic moment, an alchemic moment, wherein momentous miracles of transformation can take place. For here the intrinsic and the extrinsic can change places. This idea of locating, or placing, is implicit in our very word for definition itself: to define, or determine a thing, is to mark its boundaries hence to use terms that possess, implicitly at least, contextual reference.

—Kenneth Burke, *A Grammar of Motives*

Beginning in 1991, the United States Department of Energy (DoE) confronted a difficult challenge. The toxic radioactive waste disposal sites they were charged with overseeing would remain harmful beyond the foreseeable lifespans of existing languages. How then would it be possible to warn people in the future to stay away? For comparison, the oldest forms of writing represent a fraction of the ten thousand (10,000) year horizon of toxicity for the waste. How could the environment, now uninhabitable and highly toxic, be marked in understandable ways to a human that far into the future?
“Landscape of Thorns” endeavors to answer this question by linking a landscape of desolation with the presence of being at a particular place. Its designers, Michael Brill and Safdar Abidi, attempt to use associational logics, namely the affordances of a nearly universally recognizable negative image—the spike. Ideally, any future humans wandering in the area will recognize the sign as one of danger, and leave before being harmed. However, those future uninvited guests may also see a sign indicative of something valuable nearby. Their curiosity might be peaked. Why else attempt to deter a visitor, they may think, other than to keep valuables under lock and key? Or perhaps there is something nearby of such immense political or cultural value that further study is needed. The simplest message, stay away for your own good, becomes nearly impossible to communicate without first understanding the memory with which it would interface.

As the situation of “Landscape of Thorns” demonstrates, the rhetorical mechanics that order and organize human experience remain rely on interanimating parts. They are,
in part, functions of stimuli (light, sound, touch, smell, etc.) generated by the environment. And in part, the stores of prior knowledge and experience represented in memory also contribute to the making of order by aligning stimuli with meaning. Perception, which orders the world using both memory and the senses, cannot account for conditions in which memory is absent. Similarly, without sensation of the material world we occupy, obviously perception is impossible by definition. The persistence of the past in memory thus directly influences our contemporary experience. However, most commonly, memory rhetorics are defined simply as repositories of lived experience or existing bases of knowledge, if not ignored outright. In contrast to these predominantly inert paradigms of memory housed within the individual, this dissertation charts an alternative perspective that understands memory as it breaches the subjects/environments threshold. It positions memory as a rhetoric that conjoins two dynamic pieces (the subject and the environment) into an emergent whole.

**Of Memory’s Subjects**

Simply stated, what becomes of the fourth canon as rhetorical agency extends beyond human subjectivity? Concerning subjectivity and agency, we can begin with a basic statement of an authorial nature: I, Glen Southergill, am not writing this page. But if not “I,” who or what is doing the work of developing the argument? Would “a” Glen Southergill be a more correct articulation given the many facets of generating text? “I” could be an apparition; a conjured effort to project someone onto the page by way of the computer interface to place words on pages. The keyboard “feels” real enough, and the words—either used or using Glen Southergill—await the reader’s gaze. Some form of
producer (in true Newtonian fashion) exists, as a change requires cause lest things at rest stay at rest. So, how could Glen Southergill not be writing this? Who or what is?

The assertion “I” am not writing stems from arguments Mark Taylor offers in his explorations of complexity theory in *The Moment of Complexity: Emerging Network Culture*. Taylor argues that the “I’s” of the writer exist, but in a perpetually emerging form that violate fundamentally what “I” conceptually often times is taken to suggest. Someone is writing on this page. However, the writer may just as easily be the “you” who reads this writing within a larger rubric of response, or “them” in the sense of those prior experiences and acquaintances that shaped “I” the writer. It could also be the terms themselves, employed with their allegorical and metaphorical resonances. Or, it could be in the images conjured by the places in which this text will be read. Any of these could be the author, the subject, the artist, or another term for the manifestation of agency. To Taylor, however, “I” operates as an assemblage of past experiences interacting with and within a dynamic environment—perpetually shifting and reframing as connections are forged between parts of a whole greater than “I” can contain. It is in this sense of an unstable and shifting “I” that Taylor puts forth his assertion.

Taylor’s dramatic point, when considered for one of its many possible consequences for rhetoric, reverses the notion of an original compositional source born of agents; rather, Taylor suggests that agency exists in the “agent” insofar as the agent represents a point of intersection between the past as recalled and the environment as experienced through perception. Taylor seemingly asserts that agencies conjure the agents, rather than the oft-held notion that agency is a characteristic of the agent. When
read for his implications for rhetoric, Taylor joins a longstanding conversation that extends from antiquity into recent times. Marilyn M. Cooper revisits Taylor’s work as a part of her exposition of complexity theory in “Rhetorical Agency as Enacted and Emergent.” Cooper argues that agency and intentionality are not to be confused. Rather, as Cooper demonstrates, the agents themselves closely resemble emergent complex systems. And as is the case with any complex system, the systems of agency organize themselves.

Cooper’s argument is careful to delineate intentionality from agency: the agent gains agency not through conscious action, but from perception defined by presence and affect in any given environment. To rehabilitate agency through an enacted approach, Cooper also broadly engages Humberto Maturana and Francisco Varela’s *The Tree of Knowledge: The Biological Roots of Human Understanding*. Working through Maturana and Varela as a lens, Cooper concludes that “the enactive approach explains the nature of this kind of agency as the process through which organisms create meanings through acting into the world and changing their structure in response to the perceived consequences of their actions” (426). Whether knowingly or not, the agent and the environment perform looping actions that continually remake each other—with perception serving as a basis for the rhetorical alchemy found at the interfaces of agents and environments.

Cooper also extends arguments made by Evan Thompson and Walter Freeman in *Mind in Life: Biology, Phenomenology, and the Sciences of the Mind*, ultimately conceding that an enacted approach to agency depends on a “process of assimilation that
defines an agent as an individual with her own intentions and goals; individual agents are determinate, but not determined, in an ongoing becoming driven by the interaction among the components of their nervous system and by their interaction with the surround” (428). Assimilation in this context refers to perceptual affects, which Cooper sees as emerging from interactions of the agent and the environment. At issue is not agency per se, but the overarching lines of demarcation between the capacity to act as a rhetorical agent and the ecology in which that action would take place.

**Affectual Memory Rhetorics: Understanding Emergence**

It bears noting that Cooper’s complex system perception, which result in her claim that “agency (is) emergent from embodied processes” (436), relies on memory. She states, “the part of the loop involving intent, action, and the creation of the meaning of sensory input is largely non-conscious, as is the resultant formation of memories and dispositions” (429). She further explains “emotions, intentions, actions, meanings, memories, goals, and narratives” interact within a complex system (involving the agent and the world) in an “ongoing process of [an agent’s] becoming” (434). As a lynchpin of her broader argument, Cooper further observes, “the choices [agents] make are not free from influence from their inheritance, past experiences, or their surround” (421).

Memory becomes fundamentally important to Cooper’s theory of agency, and generative through interactive processes of agents acting in environments. While I follow Cooper in sensing a need to rethink the rhetorics of agency (and the agent) through complexity theory, I part ways in that I suggest the past plays a much greater role in the present than accounted for in her theory. Memory does not just respond to, but shapes
perception. Even in Cooper’s argument, which effectively uses emergence to develop a nuanced understanding of agency, memory remains mostly a passive filter or lens. Contrary to both Cooper’s appropriation of memory, and the persistent “storage” metaphor found in various treatments of memory in antiquity or present thought, memory that begets emergence from individuals and environments.

Within the broad corpus of scholarship surrounding rhetorics of memory, surprisingly little attention has been given to rethinking memory’s role in increasingly chaotic or complicated ecosystems in which human agents no longer exclusively possess agency. The things and places in the system themselves possess novels forms of agency, particularly as the realms of rhetorical work engage “post-humanisms” of various forms. Collin Gifford Brooke, in “Forgetting to be (Post)Human: Media and Memory in a Kairotic Age,” articulates

We have continued to define ourselves in terms of the opposition between the natural and artificial. Indeed, as Plato’s Diagnosis suggests, there is a sense in which forgetfulness is implanted in our souls. We are separated from knowledge, and increasingly we come to rely on our environment rather than our own faculties. (786)

Brooke continues, “are learning what it means to remember too much” (792). Brooke’s calls to “reconceive the canon of memory, complicating the binary Plato provides and reopening a space within our hyper mediated rhetoric for the recognition of experience” (790). Following Brooke, the artificial—the environmental—becomes a part of the agential construct, also augmenting our capacity for memory (and forgetting). Further,
our embodied memories interact with the environmental conditions and externalized sources of collective memory to generate emergence. Nevertheless, the memory problem does not stem from disembodiment as suggested by Brooke. Rather, the products of interactions between humans and environments entail a radical return to memory’s situated nature.

**Experiencing the Present: A Musical Interlude**

Highway hypnosis, it is sometimes called. After time, the familiar becomes rhythmic—a pattern experienced with diminishing returns of vanishing details. The background becomes consumptive of the foreground, in which sensory perceptions blur into one indistinguishable mass. Peripheral vision becomes blurred. A lull rolls in like the tide, as motion requires little conscious effort. The long highway rolls by, with only occasional interruptions to disrupt a strange sort of relaxation born of repetition.

But this is not the highway.

Fig. 1.2: “Hotels near Gare du Norde” by unknown photographer
Routine activities in public transit stations generate an audible and observable vibrancy. Various social conventions like conversations, and pragmatic considerations such as moving in space, conjoin the activities of with the feelings of placement within the space. Unmistakable sounds of clamoring trains and passengers hustling fill the air, as hurried people rush from place to place and metal wheel pushes against iron track with a distinctive screech. Lights blink by the tracks to signify passing trains, emitting barely audible clicking sounds as the bulbs briefly illuminate. With a whoosh, doors open for passengers to get on and off trains. They move quickly to board the trains before the doors close with another whoosh, and a voice announces the next station. The people move, not as one but as if certain conventions govern their actions to promote a form of unity—rituals coalesce from memory (avoid eye contact, watch belongings, speak on phones loudly, forget the presence of people nearby, read from tablet computers to pass the time). Amidst the noise and clamor, from somewhere the sound of a violin fills the air.

While this might seem like the introduction of a fictional novel, Washington, D.C. Metro commuters once confronted just such a scene. The air filled with the usual noises as habituated travellers went on their way, inattentive to a violinist plays. Unbeknownst to the commuters, they were missing a rare chance to hear virtuoso Joshua Bell; but unlike the crowded halls to which Bell is accustomed, his inattentive audience crossed L’Enfant Plaza Station’s entryway without much of an acknowledgement to him or his sound. To aficionados of classical music, the music’s allure would perhaps inspire
recollections of favorite concerts and performances in which, almost assuredly, they would not have been so close to the players.

I imagine, as I write this, a conversation between one of the commuters and one of the aficionados; the aficionado asks the commuter to describe the experience . . . but, shockingly, s/he has nothing to say. Bell’s style, which classical music critic Scott Cantrell describes as “sweetness and light,” found no audience: it was largely ignored during his 45 minute unadvertised subway station concert. Despite the lack of financial cost, the proximity to a highly talented and well-trained musician, and the sheer beauty of the music, some reports tell of a thousand or so commuters rushing by with barely a glance in Bell’s direction. Our imaginary aficionado’s jaw drops at this news. That the listening crowd eventually grew probably does little to put her/his mind at ease. Why did so many passing people not hear, or at least pause to acknowledge such a rare site and beautiful sound?

**An Ecology of Human and Environment, Intersecting at Memory**

At any historical moment, it is common to discover a number of different rhetorics, each competing for attention and claiming to be the one, true system.

—James Berlin

Agency speaks, then, to the possibilities for a subject to enter into discourse and effect change – even change that might serve to further entrench a dominant social order.

—Carl G. Herndl & Adela C. Licona
While it is possible that the notion of habituation associated with “hypnosis” invoked earlier may account for Bell’s transient audience—which, given their inattentive response to Bell’s play, I hesitate to call them—a more likely prospect is the presence of a larger problematic. Bell’s performance in 2007 at L’Enfant Station invokes the complications associated with blurring divisions between agency and places (environments) of rhetoric, and illustrates the need for a revitalized theory of memory. More specifically, as illustrated by this dissertation, complexity theory provides a means by which the tradition of memory in rhetoric can extend into ambient domains.

To understand the role memory plays between the individual and the environmental, two intersecting terms that receive more elaborate treatment later in the dissertation are needed: ambience and emergence. The final section of this chapter provides an overview of the dissertation’s organization, and specifically mentions the points at which these terms are raised for more thorough treatment. For now, they are used simply to describe the exigency underwriting this dissertation. Ambience, which I visit in greater depth in my fourth chapter, can for present purposes remain defined as environment affects; it explores the collapse of exteriority within interiority. Emergence, as a body of theory for self-organizing (complex) systems, models the consequences of entwining agent and scene. Emergence is explored in greater depth in the third chapter.

The interactions exemplified by “Landscape of Thorns” or Joshua Bell’s music—the scene of play and passing non-listeners, an effort to shout a warning without a common language—are perceptual matters that interface the individual and the environmental under a rubric of memory rhetorics. Moreso, they indicate the present of
an emergent construct aligned with the conjecture of this dissertation, in which memory rhetorics exhibit emergence. And as an added exigency, it bears noting that the consequences of new materialisms and post-humanisms are still only beginning to be explored within the fields of rhetoric. Memory, as informing emergence, serves a vital role to these broader theoretical undercurrents.

Returning to the questions of subjectivity interjected at this chapter’s onset, we could assert that the context refused to grant agency to Bell’s music. Admittedly, given his accomplishments as a universally regarded great violinist, it seems odd to make that claim. For the purposes of explaining the motion to broader questions of ecology, it stands to reason that the link of agency to rhetoric requires much greater explication. Marilyn Cooper asserts that “any theory of agency that depends upon a notice of the subject is thus hamstrung at the start, struggling with how to account for any action that is not either determined by or resistant to semiotic, social, political, and material others or orders” (423). Cooper’s claim acknowledges various critiques of the subject that serve to trouble agency; she recognizes that, from this broad corpus of thought, agency appears on the verge of conceptual fragmentation. As Cooper admits, it becomes all but impossible to “deny that a subject can ‘have’ agency” (423). Bell’s failure to capture that audience may support such a position. However, as Cooper proposes, rhetors confront the choice either to lament the loss of or rehabilitate an agency. She chooses the latter option on the grounds that “individual agency is necessary for the possibility of rhetoric” (426).

For illustration of the close entanglements inherent to agency within rhetoric, Raúl Sánchez in “Outside the Text: Retheorizing Empiricism and Identity” observes:
critical theories of the subject have offered the idea that agents, texts, contexts are interconnected – the idea that they are all, in fact, participants in thoroughgoing textuality. But network and new media technologies have given textuality a materiality of sorts, rendered it a daily, lived experience as well as an interesting concept. (235)

To both Cooper and Sánchez, the capacity to do the symbolically and materially heavy work of rhetoric, with its varied definitions, stems from a sense of agent-subject (one who acts and influences others in that action). Carolyn Miller’s arguments in “What Can Automation Teach Us About Agency” and Michael C. Leff’s “Tradition and Agency in Humanistic Rhetoric” offer similar arguments, in which the knowing subject cannot cleanly equate into rhetorical agency or be divided from the broader ecology.

Yet, these articulations of agent and subject struggle with the absence of “I” as theorized by Taylor. Cooper in part addresses this issue through processes of embodiment and situatedness. Along similar trajectories of thought, Sánchez turns to identity as “an aspect of the idea of traffic between textuality and the ‘outside’ of textuality” (236). Both approaches, in Sánchez’s terms, articulates a “complex relationship” resulting in a “moment . . . best theorized via a concept insofar as such a concept can speak to temporal concerns by focusing on the rhetorical vicissitudes, rather than the ontological or epistemological stability, of agency” (241). Relying on formations extended from Katherine Hayles’s How We Became Post Human: Virtual Bodies in Cybernetics, Literature, and Informatics, and Stuart Hall’s “Introduction: Who Needs ‘Identity?’,” Sánchez contends that his resulting notion of a writing-subject then “erases the boundary
between individual and environment” (245). Further, that the “the study of writing is the very site at which [the complex which exists beyond the inherent feature of experience or objects of philosophical scrutiny] might be pursued” (244).

Agency to both Sánchez and Cooper represent the intermediary of the rhetor and the rhetoric—that is, the agent and the ecology into which rhetoric attempts to prove impactful. And these mechanics of emergence are, in this dissertation, positioned as extensions of memory rhetoric.

**Alchemic Moments: Memory in the Environment**

The collapse of internal and external, under the auspices of a memory rhetoric accessed through theorizing agency, finds additional support in Carl G. Herndl and Adela C. Licona’s arguments. Herndl and Licona observe, “we are left to question not only who has the authority to speak and represent, but also what the conditions and opportunities are that allow subjects to change or to reproduce social, institutional, and discursive practices” (134). Further, they argue, “we need a more careful understanding of the interaction between agency and those regulative forces that stabilize institutions and practices” (134). Like Taylor, Herndl and Licona position agency as a pre-condition of the agent in order to uphold their argument.

The postmodern subject becomes an agent when she occupies the agentive intersection of the semiotic and the material through a rhetorical performance. Agency here does not reside in the individual, and this conception does not deny the power of language, (con)textuality, the unconscious, and capital. Agency is a
social/semiotic intersection that offers only a potential for action, an opportunity.

(141)

We may immediately revisit assertions made by Jeff Rice who, like Herndl and Licona claims “agency exists at the intersection of a network of semiotic, material, and yes, intentional elements and relational practices” (137) and sees interactivities within rhetoric as invoking agency (and, by extension, an agent). Rice’s “drawing attention to how networked exchanges distribute writing across authors and places of writing” reinforces the notion of a rhetoric derived from agency, when agency is seen as Cooper positions it: as emergent and embodied.

With Joshua Bell in 2007, I can comfortably offer several points of explanation as it relates to the rhetorical issues visible within his denied agency. Agency, we can comfortably conclude, is indicative of deeper theoretical questions derived from interactivity. The listeners moved within a rich sensory environment to which they were habituated. The sound waves of the violin encountered other elements of the sonic environment, meshing and comingling to become an acoustic assemblage of sorts. By consequence of the people’s habituation in that already crowded space—in other words, their memories as applied to it—an agency was not forthcoming to Bell. However, as predicted by Andy Clark’s treatment of active memory, the agent assimilates these external elements through processes of extension and association. Sara Vanderhaagen calls this a form of “agential spiral” surrounding memories embodied in publics—in groups that implicitly or explicitly sanction certain memories. Or in terms Edith
Wyschogrod poses, we begin a confrontation with a “subjectivity in crises forced to recursively think itself” (878).

As agency across these theories predict, the issue was to be found less in the environment than those inhabiting and, in so doing, assimilating it from invocations of past experience. Suddenly, we return yet again to the question of how to perceive something beyond our memory, and find an inability to do so. To gesture towards the emergence memory rhetoric forecasts, I offer a term formed of Kenneth Burke’s scene-agent ratio: the “alchemic moment.” To Burke, transferability between natural and subjective orders becomes possible at such moments. Burke would simplify things somewhat for us, offering a third term by referring to a form of “supernaturalism” (Grammar of Motives 50). At these alchemic moments, Burke sees the boundaries of inside and outside as permeable: one bleeds into the other, generating something else—something irreducible to either the inside or the outside. One immediately may be reminded of the tipping point harkening the arrival of emergence. It is, indeed, a connection to which I return later. For now, suffice it to say that a synthesis of Burke’s alchemy and Mark Taylor’s emerging agent mentioned earlier renders the “I” of writing a construct born of past experiences and their affective associations in the present. We could also add that alchemic moments resemble rhetorical kairos, further implicating the problematics of time and affect involved within the notion of the emergence. And in so doing, the need to explore emergence as a theoretical construct comes into sharper relief. It also bears noting how this trajectory of thought blurs and collapses the writer, the
subject, and situations of rhetoric into one another. Something unpredicted, a different “I” than its predecessor results.

An alchemic moment can be thought of as a moment of construction and generation across boundaries. On one hand, such crossings are of interiority moving into exteriority. Yet at other times, as William A. Covino’s idea of generative magic in *Magic, Rhetoric, and Literacy: An Eccentric History of the Composing Imagination* reminds us, the demarcation of normalcy seems particularly germane. To explain, symbols, language, and rhetoric become means to animate previously arrested discourse. At least a part of memory’s function is to afford stabilizing patterns that offer senses of order; Covino positions magic as the rhetoric needed to break those patterns and to un-arrest the stabilizing influence so that something new can take root. Mark Taylor similarly sees critiques of the sort in which agency becomes irreconcilably fragmented as blinded. To Taylor, non-totalizing systems offer an openness that is susceptible to change (or generation of contra-arrested discourse). In such systems, the author or artist for that matter is not dead, but distributed and extended across the ecology of writing.

Taylor and Cooper engage the question of authorial “I’s”—who or what is writing, or coming into being from environmental queues (textual or otherwise)—as the tip of a web of interconnections, which the sphere of continuously and dynamically daily encounters continuously reshape. Writers or producers of creative content, extending Taylor and Cooper’s lens, exist less as a matters of being than of becoming—or, more colloquially, of works-in-progress in which ecological factors affecting the writer become the writer her or himself. Amongst the swirl of interactions that generate the writer “I,”
Taylor interjects remains incompletely reconciled within rhetorical theory. Cooper provides a useful framework in her arguments to the effect that agency is not to be found in the ecology, but is of the ecology. “I” is continuously made and remade by virtue of connections within the surrounding environment, including most especially the affinities or identifications that produce a general sense of the familiar.

As the corpus of scholarship examining agency illuminates, alchemic moments spring from hyper-connected ecologies over time. Consequently, the questions of “I” derived early on in this chapter infringes on and encompasses several related terms: subject, artist, writer, context, and non-human. Although not synonymous, the rhetorics of memory vitalize and invigorate the alchemic process of emergence.

**Vitalizing the Past**

Out of the same store do I myself combine fresh and fresh likelihoods of things, which I have experienced, or believed upon experience: and by these do I infer actions to come, events, and hopes: and upon all these again do I meditate, as if they were now present. Memories here are not simply reproduced: they are likenesses that are ‘combined’ or, in another translation [of Augustine’s *Confessions*], ‘woven’ (contexto), that is, shaped in the process of remembering – and memories that ‘I . . . myself’ combine (or that ‘I can myself weave’) are hardly reducible to servile reproductions

—Zsolt Komáromy

To Cooper, agency conceptually aligns itself with the resonances of the past as an integral part of a complex system of which rhetorical agents are a part. She notes, “order
is a provisional and temporary achievement, because agents are always doing things that make a difference” (425). Quite literally, building from complexity theory, the presence of an agent supposes the existence of an agency—consciousness and deliberation may (but need not be) a part of the scheme. As she notes, an agent (unlike a subject) are “unique, embodied, and autonomous individuals in that they are self-organizing, but by virtue of that fact, they, as well as the surround with which they interact, are always changing” (425). Material conditions collide with subjective influences, resulting in alternative possibilities of production that trouble efforts to fetishize the intrinsic or extrinsic as detached constructs.

I replay Bell’s violin from this point of origination, in which I note that agency’s inevitable presence indicts the presence of a rhetoric that requires a sense of the past. Fruitfully, rhetoric / composition scholars such as Thomas Rickert, Nedra Reynolds, Byron Hawk, and Margaret Syverson revisit the “I” questions as a part of their theorizing complexities of the social and material. Neglecting the binaries of either/or, social or material, the trend of scholarship of which Rickert, Hawk, and Syverson are a part invoke terms of interconnection—which I, in this dissertation, argue possesses emergent characteristics that stem from memory rhetorics. A number of fields, perhaps sensing the same trade winds, express related ideas. Artists have explored site specificity to consider how expectancy and place conspire to produce material affects on the patron. And historians look to the means by which context contribute to the subjects of study.

Assemblages of the emerging “I” illustrate interconnectivities derived from several converging lines. However, rhetoric’s turn to theorizing emergence is in its early
stages. As an element of this dissertation’s broader argument, Burke’s alchemistic moments gain newfound significance in “post-human” and “new material” rhetorical contexts. Such moments invoke and respond to emergence across this dissertation’s weaving of several foci. Within new materialisms, the things that make up our ecologies of writing move from passive to active and vibrantly engaging. They engage us as much as we engage them. In this “post-human” landscape, the agency of things cannot be overlooked. Consequently, swirls of interactions generate new constructs. Rhetorics born of complexity align with the epoch into which this dissertation enters, in which expanding networks and cross-disciplinary engagements of actors, things, and places breed new connections. Under such conditions, the rhetorical canon of memory gains a newfound (but under-theorized) importance.

Although born of the scientific, complexity represents a corpus of thought rippling into the humanities more broadly within the rubric of new materialism. Concurrently, there is also presently a proliferation of memory. Both fields—those that study memory rhetoric and those that study complexity—engage networked thought. Memory remains, in part, in the human body (interiority). Musicality itself depends on certain familiarities, and of terms including harmonics and symphonics, which reside (in part) in memory. Joshua Bell’s skills were honed with practice, his memory eventually assimilating the actions associated with making music to the point of intuitive gesture. Amongst his audience, the often-mentioned “trained ear” becomes little more than metaphor for remembering a broader range of musical style. However, memory also abounds both in the proliferating technologies and cloud-informatics surrounding the
human subject, and fabrics of the cultural collectives of which any given human is a part (exteriority). Such exteriorities are of the sort complexity theory endeavors to simulate. As a further point of intersection, the assorted models that simulate events represent in much the same way memory does. Archival spaces preserve the past in ways from which efforts may be made to apprehend past events. In these synchronous gestures, of memory’s proliferation and the complexities of rhetoric, comes a theoretical gap to which this work responds – a sense of emergence.

It bears noting how memory tends to fall into problematic languages of “false” versus “accurate” divisions. Yet, to the rhetorics of memory broadly construed, such labels are of little consequence; memory accomplishes more than retrieve semblances of the past (translating prior experiences and encountered ideas into present contexts), it provides mechanisms of emergence by which the present can be understood (perceived) in affectual terms. What led to particular patterns of thought (manifested in actions) where Bell’s music was so often overlooked? In that day’s ecology of media, music, hustle, and moving sea of humanity, many overlooked a rare sound. Surely, our imaginary aficionado thinks, the commuters lost something—something that could have inspired, and remained with them.

We can’t say it was forgotten in that it was never perceived, but it was not perceived because memory’s manifestations veiled it. Yet, that was the absence as experienced by one commuter; had the same conversation included one of the fortunate few who stayed to hear the music (even if with untrained ears, vaguely aware of but not quite able to discern the nuances of the music), another recollection may have been
discussed. In this alternative course of events, the commuter assimilated the music into their experience of moving through the terminal. The aficionado, I imagine, would be pleased to hear how Bell’s violin made the space into something new and unexpected (even if amused by the commuter’s rudimentary sense of music).

Each of the imaginary aficionado’s responses, who is her/himself an amalgam of various people I (or you) have seen or met in the past, would have required an act of translation—a placement of past situated experience into the present—had the conversations actually occurred. We could endeavor to entitle the processes involved remembering or imagining, neglecting the subtle distinctions between these concepts. And depending on our attitudes toward historical accuracy, memory may seem like a safer theoretical harbor than imagination. As a brief note of differentiation, the passing crowds who walked by without pause—we could not apply the related term “forgetting” (for to them, after all, the passage would assuredly not be recalled for its intersection with Bell’s music). But if we treat the case as an articulation of a type of memory, we must do so aware of several points. These include subjectivities associated with any experience—that even amongst shared happenings, some variance inevitably occurs. Also, we must be sensitive of the challenges of translation and translatability into different contexts. We conjure modified semblance of the past that, awash with allusion to other memories, bleed into a new wholes.

Following Jeff Pruchnic and Kim Lacey, contemporary theories of memory rhetorics are of two sorts relative to any agent of rhetoric: external and internal. I find this taxonomy appealing in that it acknowledges the potential for media storage,
commemorative sites, and archival space as extensions of the canon. Further, their use of “internal” places is a sufficiently broad category to encompass both “mind” and “body” (rather than mind/body), offering a path to negotiate a tradition of contentious thought. I continue, but more radically extend in this project, the holistic system suggested in Pruchnic and Lacey. In accepting a binary of “internal and external” forms, as advanced by Pruchnic and Lacey, memory invokes a tradition of rhetoric in which “broad systems in which past experiences and associations are captured and/or strategically leveraged for persuasive effects” (475). At the most generous of articulation, memory systems “function as mediator or interface between human interiority and exteriority as well as the impact of rhetorical memory on suasion in general” (477). Agreeing with Pruchnic and Lacey, I discuss how memory’s rhetoric functions as easily at the space of interface (the flesh of gatekeeping between that which is inside and that which is outside) as it does either internally or externally.

Systematizing memory’s intrusion into rhetoric as a collapse of external/internal opens a theoretical need, one addressed in this dissertation. Being reluctant to detach memory from situated and embodied rhetorical assemblages, I argue thinking complexity and ambience revitalizes memory. As exteriority encounters interiority, the border(s) of perception and memory become permeable—plastic. Consider that, at its face, the relationship of memory to forgetting (or, as a matter of subject, the forgotten) appears antithetical. What memory is to keeping, forgetting is often thought to consist of losing or, for that matter, deleting. By extension, memory works in opposition to forgetting by way of inclusion, protection, or preservation. However, such simple binaries vastly
understate the relationship memory forges with the past in the present. And it is for purpose—to think the affects of the past in an ecological present beyond external/internal and remembered/forgotten—that my theoretical exploration follows a path for an emergent rhetoric, of memory.

**Chapter Organization**

The chapters of this dissertation are deliberately arranged as a loop, beginning and ending with a form of memory rhetoric. Chapter 2 establishes memory as a canon in rhetoric’s classical and contemporary history. It begins with an overview of pre-Platonic thought, in which memory is described as a web of relationships. Then, the chapter describes Aristotle’s theory of memory in which he defines it as an affection of the past in the present organized by nodes—resemblances (phantasmata). Subsequent Roman rhetors (Cicero, Quintilian, *Rhetorica ad Herennium*), and contemporary virtual or phenomenological perspectives (Henri Bergson, Brian Massumi, Elizabeth Grosz, Paul Ricoeur, Edward Casey) reaffirm the relationship of memory to affect. Finally, chapter 2 illustrates memory’s role in affect by drawing on artists like James Turrell, historians like Jay Winter and Pierre Nora, and theorists like Paul Ricoeur.

Chapter 3 describes emergence—the processes by which simple components affect systems, and interactions give rise to complex systems. To Paul Cilliers and Sandra Mitchell, the study of complex systems requires an understanding of how simple interactions converge. Such convergences generate complexity as explored in works by John Holland, Stuart Kauffman, and Manuel De Landa. As chapter five illustrates, Andy Clark, Evan Thompson, and Terrence W. Deacon’s connect emergence to memory
rhetoric under the auspices of the extended mind hypothesis. Emergence as a form of situated memory rhetoric is further theorized using Kenneth Burke’s notion of perspective by incongruity.

Chapter 4 examines the emergent relationship of agents and environments under ambience. Ambience refers to the envelopment of subjects in spaces, and finds expression in the works of contemporary artists Miru Kim and Sally Mann’s themes of decay. Chapter 4 expands ambience as a product of affect across domains of habituation, expectancy, and attenuation. Then, specifically drawing from groundings established by Nedra Reynolds, Thomas Rickert, and Margaret Syverson, chapter 4 describes ambience as an emergent approach to writing pedagogy.

Finally, chapter 5 revisits (returns) to the theme of memory rhetorics under the rubric of neuro-scientific turns. Looking at what Barbara Marie Stafford terms the new “meta-field,” chapter 5 invokes neuroplasticity. Neuroplasticity considers how the brain rewires itself in response to prior learning, yet retains an ability to adjust to new experiences. However, rather than await stimuli to facilitate a change of the brain, the brain actively projects expectancies onto the environment. Only as those expectancies are violated does emergence occur, and memory regenerates itself into a new order. The dissertation thus ends near where it began, with subjective (individual) rhetorics of memory—connecting recent neurological evolutions with longstanding theoretical discourse.
CHAPTER TWO
THE MEMORY PALACE

The way we take up any part of our sensory experience, the way we actually experience it, the meaning we give to it, is always affected by the rest of our experience, some of it current as background perception, some of it as something retained from previous encounters with the world.

—Kurt Danziger, *Marking the Mind: A History of Memory*

Visitors to artist James Turrell’s *Blue Planet Sky* enter a square room whose features are, at first glance, completely unremarkable. The level floor, drab paint, and square corners fit the archetype of any number of routinely encountered built spaces. However, their sense of normalcy lasts only a short while; visitors quickly find their gaze wandering toward a large rectangular hole in the center of the room. Blue sky, natural light, the passing clouds, and perhaps a few birds enter their field of vision. It is not
uncommon to notice other patrons staring skyward in silence, transfixed at the sight of open sky in an otherwise “normal” room.

Seeking to “awaken us to perceptions we ourselves are normally unaware of,” (Blue Planet Sky) Turrell uses a readily available and plentiful media (the light from the sky) to attenuate his audience to the trappings of their perceptions. Visitors expect a ceiling with artificial light and the hum of electronics, but instead find natural light from a skyscape. Turrell’s Sky introduces a sharp divide between expectancy and awareness, as it surrounds occupants of the room with natural light. Viewers may as a consequence begin to sense an otherwise masked artificiality of interior spaces. Sky ceases to follow expectations; once transformed by the light of the sky, Turrell’s installation interrupts the visitor’s anticipations. However it is not the room that changes—only the light and the expectancies of the guests within it. Visitors have the same basic senses they did before entering the room. Their powers of sight, hearing, and smell are no stronger or weaker than they were.

Essentially, Sky displays a sensibility to the ways in which perception relies on past experiences. Much as Kenneth Burke sees in literary form “an arousing and fulfillment of desires” (Counter-Statement 124), Sky calls attention to a form of memory typically hidden from conscious awareness that affects perception. In more fully defining and describing this frequently overlooked form of memory, this chapter enters an intellectually contested land concerning the relation of the past to present (aka: memory to perception). In sharp contrast to the operations of memory exemplified in Sky, memory often remains theorized as inert. Such theories describe memory as a form of storage
awaiting addition or retrieval. Subsequently, under this common formulation, perception or invention pull from memory to apply past experiences to present contexts. Memory, such an articulation would hold, awaits activation. However, Turrell’s Sky illustrates that the acts and processes of experiencing places or things relies more extensively on an active and generative memory than the storehouse model can address.

Turrell, this chapter illustrates, is not the first to complicate memory’s role in perception or inspire critiques of the reductionist lens favored by storehouse models. This chapter first offers a theoretical grounding for memory as a generative rhetoric derived from classical, Renaissance, and collective understandings. Consequently, as this chapter discusses, memory conjoins identification and motive. From this common heritage, memory displays emergent properties (as the next chapter addresses) and manifests itself in the ubiquitously technologized ambiances of the “everyday” and in neurorhetoric (as subsequent chapters describe).

**Defining Memory in Perception**

The greatest and fairest discovery has been found to be memory; it is useful for everything, for wisdom as well as for the conduct of life. This is the first step: if you focus your attention, your mind, making progress by this means, will perceive more. The second is to practice whatever you hear: if you hear the same things many times and repeat them, what you have learned presents itself to your memory as a connected whole. The third step is: whenever you hear something, connect it with what you know already.

“Dissoi Logoi or Dialexesis,” 292-293
Rather than interrupt or criticize memory, Turrell’s *Sky* offers a chance to become attenuated to its omnipresence. Entering a generic room and encountering familiar coaxes viewers to see all parts anew. The visitors may then witness just how far past experiences extend into sensory understandings into the present. Experiences of the sort *Sky* inspires can haunt, inspire, illuminate, or otherwise drive visitors to certain feelings. Within contemporary art, “place” resonates with site-specificity (placement as a form of artistic medium) and aligns space with memory. For collective memory studies, places of preservation or commemoration become the lynchpin for sanctioned tellings of history. Yet place remains an elusive concept predicated on the mechanics of perception, which then rely on certain characteristics of memory. *Sky* offers a singular illustration of a broader problematic—both in that places can inform memory, and how memory informs a given subject’s experience of place. However, there is an intermediary term between memory and place that becomes more evident when visitors move out of *Sky*. Understandably, it may be a disquieting experience to enter other rooms afterward visiting *Sky*—perhaps seeing the odd florescent hues or artificial light trigger through renewed eyes becomes disquieting. It can become difficult to not look for clouds, blue sky, or a flood of natural light in spaces otherwise “protected” from the natural world.

In other words, the space between memory and perception becomes accessible to investigation in Turrell’s use of light in a “normal” place. While the perception of light remains an intuitive process of sensation in one limited sense, memory’s role requires further consideration. As Turrell’s work signals, this chapter stakes a contrasting position
to the oft-held perspective of active perception and passive memory by drawing from rhetorical histories. Memory historically often developed rhetorical inclinations when, in part, it became *designed*: memory-palaces created systems of concepts and past experiences predicated on boundaries of past/present and permissible/impermissible. Subsequently, the idea of memory as place suggested an ability to divorce memory from the processes of experience. To offer a synopsis, the palaces of memory (also known as “loci”) became places that theory began to view as separate than the experiencing of any given material or physical place. Place represented both a logic of organizing as well as a sensation of familiarity. A situated person possesses memory, so goes this line of thought, but that memory would be insolated from the environment of which that person was a part. Memory palaces and loci remain a part of a broader theoretical tradition, but they easily overlook another thread of memory theory within the rhetorical tradition.

Memory also serves to produce order in the present even as it surrounds and envelops us in biological, cultural, and digital forms. Rhetorical perspectives on the entanglements of past into present can then be understood as that which studies the formation or reformation of the memory palace, and not just the palaces themselves. The commuters of 2007 exposed to Joshua Bell’s music (see Chapter 1) employed their memory to navigate a rich sensory environment—Bell’s music was one part of a larger scenic whole. Sensory perception engaged the environment, yet prior knowledge and experience ordered the otherwise chaotic scene. Navigating place or appreciating music stems from an entanglement of memory with perception.
However, interjecting perception immediately troubles the existing boundaries of past/present (which lend themselves to a limited understanding of memory as simply a palace). Perception is of the “somewhat.” It is “somewhat” controllable in that we can consciously affix our gaze on certain details or ignore others. It is “somewhat” a consequence of method, where training can lead us to consciously use it as a method of invention or of understanding context. Perception is “somewhat” of the present, but invokes a particular sense and function of memory. *Loci* offer one way to approach memory, but it is a way that neglects the aspects of memory that guide and inform perception. To provide a basis for the active and generative memory rhetoric required of perception, an alternative grounding of memory rhetoric warrants consideration.

As an accompaniment to *loci*, memory rhetoric in classical thought relied on memory images called phantasmata. As William A. Covino summarizes, “for the ancients, phantasy denotes cognition, and all prevailing models of mind presume that one cannot understand without phantasms” (32). Further, Covino notes, “when we investigate magic or rhetoric, we are looking at the process of inducing belief and creating community, and looking at how the mind creates impressions and controls their powers and effects” (33). The mental images created in generating memory become the same images used to assimilate new experiences; in other words, phantasy connotes the rhetorical approach of appropriating the past into perception. They are not the things or experiences themselves, Aristotle argues in *On Memory*, but shadows cast forward from (but are not the same as) the things themselves.
While *loci* provide a tradition to memory born of place, phantasy considers the role of visual imagery—and, by extension, considers how imagery from the past interacts with sensation in the present to produce perception. In David Krell’s treatment of Aristotle’s *On Memory*, memory “instigates a peculiar kind of presence” found as an “object of perception or knowledge without activating perception or knowledge as such” (15). To Krell, Aristotle connects “imagination” and “psychic images” as related terms, noting “the role of images in memory, plus the cognizance of time that we take in memory, time as a bounded magnitude, quantity, or how-much, and as a kind of motion, elevate memory—which at first seemed a mere aspect of perception—to the status of a ‘primary’ perceptual power” (15). Krell’s connection of imagination to psychic images results in a tension—he uses “incision” to invoke earlier treatments of memory as forms of sensory impression retained over time. As a consequence, Krell notes a remnant (an “icon”) available for further study in its own right. Alternatively the connection of phantasy to experience could become associated to a particular somewhere, or something, in “relation to an original” (17). These two perceptions of memory as either iconic or relational results in, Krell subsequently observes, an “either/or of our psychic scanning results in a common equivocation: we are often unsure in any given case whether what we ‘see’ in our minds is actually a memory or not” (18). While further blurring the distinction of memory and perception in what is sometimes termed “working memory,” Krell suggests the insufficiency of storage even while drawing from “incision” as a point of elaboration. Krell’s work applies pressure on the loci as an exclusive and exclusionary rhetoric of memory. Instead, it lays a framework for drawing from the image—the
phantastical—as an approach that both reclaims a marginalized tradition that also assumes a more active position within perception.

Mary Carruthers echoes the mystiques of phantasy Krell describes, defining them as resemblances of things that spur recollection. For memory, Carruthers reminds, phantasy generates a “re-enactment of experience” which is “heavily dependent on the recollector’s skill in being able to form memory images that are ‘rich’ in association” (76). In this light, phantasy does more than encapsulate the past into something retrievable: it offers points of entry into loci, serving as the proverbial bricks of the memory palaces. They also respond quickly and in consonance with emotional or physiological reactions, thus connecting the experiences of the present with the remnants of the past. Carruthers’s invocation of emotional resonance in phantasy again positions memory as informing perception through mental imagery.

More broadly, Aristotle asserts in De Anima “whenever one is contemplating, it is some image (phantasma) one is contemplating; for the images (phantasma are like sense data without matter” (De Anima 432a). The habits of experiencing the present rely on phantasms, and phantasms inform the acquisition of new experiences or knowledge. As further demonstration of phantasy’s importance, certain experiences of a particularly jarring nature cannot be forgotten nor remembered using the existing structures of memory. This is not to suggest an ontological or epistemological anarchy; on the contrary, the phantasmal consequence of projecting the past in the present provides an alternative framework for understanding memory-as-rhetorical. Zsolt Komáromy’s, for instance, discusses that memory arts inform the aesthetics and logics of literary criticism.
To Komáromy, in the experience of aesthetics “. . .memories are therefore makings, not copies; memory produces what we remember; it does not reproduce fixed contents” (Italics mine, 8). In similar ways, Kurt Danziger argues, “perception and memory do not constitute two separate systems but are aspects of the same adaptive response” (259). To Danziger, the separation of memory from other faculties (including perception) necessary to building a *loci-centric* understanding of memory had less to do with the subject of study than the development of sub-disciplines in the sciences. Danziger continues, “what is retained is the potential for recognition, for categorization, and on the psychological level this manifests itself as a perceptual achievement” (259). Danziger and Komáromy demonstrate that phantasy employs a sense of memory that offers an alternative to storage/retrieval perspectives. As Aristotle would remind us in his treatise *On Memory*, we are left not with the things themselves (which are already lost to us), but to approximations.

In ways Danziger would note more recently, Fredrick Bartlett argues that remembering is reconstructing (266). To phantasy, such gestures towards reconstruction interrogate how the past animates the present. While phantasy accounts for organizing principles born of past experiences, it presupposes also an ability to morph without the addition of new memory. Essentially, existing memories not only inform present experiences but also accommodate them. The phantasy would morph to fit the newer circumstances. In so doing, phantasy exhibits a capacity for the addition of new experiences without contributing new memories. Such would be anticipated in cases, for illustration, of why new places invoke feelings of deja-vu. They are sufficiently similar to
invoke a phantasmatic association, but insufficiently divorced to require a new image. Such circumstances would suggest that not all phantasmatas are equal. As they grow to encompass greater varieties of association, phantasy would hypothesize that some phantasmata would gain both greater pliability and primacy.

Memory as related to perception and expressed in phantasy offers organizing generative principles of the places a subject inhabits. Phantasy thus provides a means of recovering memory not simply as loci, but as images in the processes of making place present. It insinuates a form of memory active in the present and violates the primacy of loci in theorizing memory. Memory, when viewed phantastically, actively guides perception even as it is reframed by its encounters with the surrounding environment. While I am not arguing for a synonymous entity with perception, my reading of memory extends the fourth canon by suggesting a reliance on the past within the affects of present experience. When seen in this way, phantasy invokes a sort of memory which is as concerned with the present as it is with the past. It is also always already material: the writing, speaking, or the sensory impressions of testimony can be viewed as memory incarnate.

**A Rhetorical Lineage of Phantasy**

Now let me turn to the treasure-house of the ideas supplied by invention, to the guardian of all the parts of rhetoric, the Memory.

—*Rhetorica ad Herennium*

Nothing is ever really lost, or can be lost, No birth, identity, form — no object of the world.
—Walt Whitman

In a problematic related to the exigencies of a depleted understanding of phantasy, what is it, Giorgio Agamben asks, to bear witness to something that could not be directly experienced? How can we serve as voices to those unable to speak? Agamben sees the Jewish victims of Nazi perpetrated genocide as voiceless outside the memory of survivors. Survivors were touched by something in common, of course, but not in the same way. The calling forth to the present in testimony is a lacuna in Agamben’s thought—they could not actually speak for the dead. Agamben turns to an issue of phantasy implicit in questions of language and writing when he suggests, “perhaps every word, every writing is born, in this sense, as testimony. This is why what is borne witness to cannot already be language or writing. It can only be something to which no one has borne witness” (38).

Agamben derives the idea of witness, in part, from the etymology of martyr: martsis with dual connotations of remembrance and profession (26-27). From these two connotations implicit to witnessing and to writing, a number of problems arise—notably the impossibility of remembering in the place of others. Instead, those who cannot speak for themselves must rely on “pseudo-witnesses” who “bear witness to a missing testimony” (34). Agamben adds “testimony is thus always an act of an author: it always implies an essential duality in which an insufficiency or incapacity is completed or made valid” (150). Therein lies Agamben’s return to the paradox of perception and invocation of phantasy, testifying to what happens to others relies on an authorial—a productive instead of reproductive—logic that renders the “knowability” of the non-lived past in
question. The alternative, a turn to phantasy, favors re-writing the past even as it is accessed in or guides the experiencing of the present.

This section builds from classical and Renaissance rhetoric to offer a rhetorical lineage of phantasy; in short, it affords an answer to the problem of testimony Agamben frames. As Frances Yates articulates, memory as a field of study sprang from divine roots in which memory was the mother of all other muses. Yates’s frequently cited history of memory begins with an accounting of Simonides, a poetic magician who illustrated that the memory palace could be built through application of images to organizing frameworks. Simonides, the story goes, visually recalled the seating order of a banquet hall while identifying the mangled corpses killed by a collapsed roof. His method could be applied to other contexts simply by selecting memorable images to signify concepts, ideas, or other such subject material, and then finding a place in the mind’s eye for it. In short, Simonides built a memory palace to house images of each person, which in turn became the study of memory. The notion of the image, in this sense, immediately invokes a sense of phantasy. Memory excludes as well as includes, and closely relates to matters of style wherever metaphor (or delivery in the case of gestures as two examples) were employed.

Loci, most importantly, house but do not replace images. From the memories of others, a type of embodied knowledge accessible through dialectic (a Socratic method of investigation, in common parlance), Plato sees an opportunity to move toward truth-primordial (already present and innate). The young, those untrained, can obtain a material and physical sense of truth through introspection with basic questions to provoke inquiry.
Nevertheless such moves cannot be made in the environment to Plato through such stationary objects as rivers, trees, and grasses, as Nedra Reynolds describes. People and their mnemonic aviaries provide palaces from which the wisdoms of the past can be extracted. Yet the wisdoms present in the memory reside beyond loci, as the loci are merely the points of entry in the Platonic scheme. For further elaboration on the phantastical history of memory in rhetoric, one of the earliest treatises wastes no time juxtaposing the contents and hosting of memory. To the anonymous writer of the *Rhetorica ad Herennium*, memory is a “treasury” (place of invented things) from which rhetoric could spring. At first glance, it would appear that the *Rhetorica* merely invokes an inert sense of storage. And while that element of memory remains present, this early Roman treatise of unknown authorship includes gestures towards a phantastical understanding.

Nevertheless, numerous rhetors dismissively define the memory as storage worthy of little consideration in part due to an impoverished sense of phantasy. They may neglect the concept writ large. Under such dismissive attitudes, the rhetoric of memory consist of mnemonics; the speaker must learn where to look for material that can become meaningful and, concurrently, learn how to add to memory naturally or artificially.\(^1\)

Simply stated, a rhetor must simply learn to set things somewhere for retrieval later and allow the other canons to address current contexts or application. Over time, assorted methods for keeping information or other materials against the ravages of time

\(^1\) See also Sharon Crowley’s treatment of memory-as-methodological.
\(^2\) Heather Pringle suggests an alignment between John Rous’s description of the event from the period in which it occurred and the bones; it follows that perhaps the most complete picture of Richard’s final moments results from the material memory of the
(protocols) would be developed to enhance the strength of those stores: which then again invoked an exclusive sense of memory as storage.

Yet, storage and receipt overlooks a critical consequence of memory—that of guiding perception. Aristotle observes that what is “recalled” from memory is assuredly not the event or thing of the past but some façade of it. Such definitions appear paradoxical, for what has passed is no longer present. More plainly spoken, what remains of a past that has by definition faded? Potentially useful senses or semblances of patterns, evidence, and ideas awaiting the rhetor’s conjuring influence, perhaps as pieces of oratory or proofs refined alongside other significant components of the rhetorical enterprise, remain in memory’s stores. Those trace-like images interconnect with memory rhetoric and afford a gaze into the operations of the past in present experience.

Cicero’s concern with the memory/rhetoric connection in De Oratore resides less with natural faculties than with the ways to develop “the most complete picture” as both natural “endowment” and the consequence of practice. Relying on sight, Cicero states:

. . .the keenest of all our senses is the sense of sight, and that consequently perceptions received by the ears or by reflexion can be most easily retained in the mind if they are also conveyed to our minds by the mediation of the eyes, with the result that things not seen and not lying in the field of visual discernment are earmarked by a sort of outline and image and shape so that we keep hold of it as it were by an act of sight things that we can scarcely embrace by an act of thought. (II. lxxxvii 357-358)
Cicero explains that even images, or the outlines of images, “require an above, inasmuch as a material object without a locality is inconceivable.” Perhaps the rhetor could simply envision a walk through her or his home, with images in each room along the way. In this conception, as a noteworthy correlate to its generative role in phantasy, memories were not solely grist for rhetoric’s mill as generators of content—memories also checked against excess and/or superfluous argumentation by guarding against potential abuses of the past, or at least those treatments that could in some ways be contested.

To Cicero’s rhetorical scheme, memory and rhetoric interanimate each other. “The efficacy of the whole science, of rhetoric,” Cicero asserts, “is not that it wholly originates and engenders something not part of which is already present in our minds, but that it fosters and strengthens things that have already sprung to birth within us;” (II. Lxxxvii 356-7). Memory is positioned in Cicero’s scheme in circular fashion: on one hand, it is always already present and awaiting hailing through rhetorical invention. Yet, to the other, it is responsive to that which perception brings to it. Cicero positions memory as a pre-condition for rhetoric in two noteworthy senses. In the first, it serves as rote material that the operations of invention and style can refine. Secondly, under the auspices of delivery, it becomes a means by which to generate an affective response in an audience. Memory, to Cicero, develops an inextricable relationship the runs throughout the whole of rhetorical activity.

For illustration, Cicero describes in his preface that the events of the dialog have been forgotten. Memory does more than simply allow for the recall of those events, but allows for a form of reinvention—a generation of the past through the present. The leap
from generation of past through present indirectly invokes the paradox of perception. While gesturing toward a product of senses, he states “the most complete pictures are formed in our minds of the things that have been conveyed to them and imprinted on them by the sense” (II. Lxxxviii 356-7). He further notes, “the ability to use these will be supplied by practice, which engenders habit” (II. Lxxxvii). As memory-palaces, to use an articulation of particular note to Jim Spence, the habituation of a trained memory allows a trained rhetor to spot gaps in arguments. Yet it also affords a lens to guide the creation of things through perception; Cicero’s circle becomes vicious as habituation leads perception to adeptly recognize the familiar at the possible expense of the strange.

Simonides showcases an ability to use visual descriptors to enhance natural abilities—sight and memory rely on each other, which then became a framework for rhetorical training. Cicero elaborates and extends this co-implication. Yet memory’s specific and narrower role as a repository, in line with what Freud would much later describe as a surface upon which to write and erase like a mystic writing pad, neglects the affectual reach of memory on perception. This antiquated sense of memory arts as only depositories of information or sensory impressions signifies a rather drastic recasting of the memory palace from phantasy and loci to exclusively loci. Under memory in a mechanistic sense becomes “invented” as the “product” of perception.

Paolo Rossi argues that memory became reified not by the subject but by the specialization of academic labor offers a partial explanation. Rossi suggests that the self-sustaining nature of disciplines of inquiry, which in turn invented vocabularies and methodologies over time, resulted in the scientific method’s early formation and claim to
logic. Cuts between inquiry to maintain and perpetuate intellectual division further assimilated memory along the way as inert, and passive in order to make it a suitable target for study through any given discipline’s lens. The “primary aim” of this division of rhetoric from logic “was to remove memory from the province of rhetoric” (98). Rossi’s history unsurprisingly focuses heavily on Ramus claiming logic as a “reform” and “a return to the teachings of classical philosophy” following “corrupt[ions and] terminological confusion of the scholastics and the traditional rhetoric which stemmed from Quintilian” (98). The “primary aim” of rebutting the follows of Quintilian, interestingly, “was to remove memory from the province of rhetoric” (98). Subsequently, in Francis Bacon and Rene Descartes’s thought, Rossi argues “the absorption of memory into logics and the identification of the problem of method with that of memory gave rise to the concept of method as a 
classification of reality, a notion which became vitally important to European thought in succeeding centuries” (101).

Ramus’s split of logic from rhetoric divorced memory as a subset of logic from rhetoric and included similar movements of material (ontologies of things, the body) concern from issues in style and delivery. Francis Bacon and Rene Descartes advance these dichotomies. Inherent to Bacon’s placement of rhetoric is a division between mental faculties in which memory serves a function alongside imagination and reason. Rhetoric, to Bacon, exists as a necessary intermediary—found not in one of the incarnations of mental faculty, but across and at the borders of all three. To Bacon, memory occupies a fourth space between moving the will (which we could say is of and in the present) and the cognitive capabilities of a subject to retain some sense of the past.
The faculties associated with the past are co-implicated within the processing of the present to generate a critical role for rhetoric. Still a separate entity in some ways revitalized by the value it produces in stylistic affect, Bacon’s notion of rhetoric remains salient.

**Phantasy’s Persistence in Collective Memory**

Our interest in *lieux de mémoire* where memory crystallizes and secretes itself has occurred at a particular historical moment, a turning point where consciousness of a break with the past is bound up with the sense that memory has been torn—but torn in such a way as to pose the problem of the embodiment of memory in certain sites where a sense of historical continuity persists. There are *lieux de mémoire*, sites of memory, because there are no longer *milieux de mémoire*, real environments of memory.

—Pierre Nora, *Between Memory and History: Les Lieux de Mémoire*

A proliferation of work in collective memory interjects a new domain for the investigation of phantasy. While the subjects of collective (or public) memory are not imaginary, the assorted means of conveying sanctioned telling of communal events routinely intersects within persuasive ends. In other words, a particular take or telling of the event in its aftermath is often preferred as it is performed. To illustrate the problematics raised in collective memory studies, I offer a recent discovery. Of the many places that could house a memory of Richard III, Duke of Gloucester, a common parking lot seems undeserving of much attention. The Tower of London, where some historical
narratives suggest he executed his young nephews (Edward V and Richard of Shrewsbury), seems like a more fitting location. Alternatively, William Shakespeare’s *Richard III*, with its invocation to “the winter of our discontent,” could prove more insightful. But once recovered from a common parking lot in Leicester, the controversial monarch’s remains inspired a reconsideration of his significance across the fabrics of memory.

The lot and its contents do much more than simply render evidence of certain accounts of history at the expense of others, or generate a space from which new questions about the life and times of a single controversial figure can be born—it invokes and illustrates a fundamentally difficult relationship of internal memory to places and objects. Rhetoricians can view the lot as at an intersection of memory systems: forensics, artistic representations, literary references, popular cultures—to name just a few. The parking lot, when viewed in this way, reminds us that there are several ways of remembering, that internalizations alone do not suffice as they collide with historiographical inquiry to interject a critical exigency. Issues and implications exemplified by this lot extend beyond the figure(s) of Richard himself, instead asking more fundamental question concerning how memories are constructed or reconstructed continuously over time and, in short, assume a vibrant rhetorical character.

Some physical places are designed to be the material representations of memory (monuments, for example). However, phantasy’s concern regarding the relationship of

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2 Heather Pringle suggests an alignment between John Rous’s description of the event from the period in which it occurred and the bones; it follows that perhaps the most complete picture of Richard’s final moments results from the material memory of the bones in conjunction with the archival memory of Rous’ testimony.
rhetoric and memory extends beyond spaces designed explicitly for remembrance and locations at which archeological efforts of material or metaphorical forms attempt to tell or retell history. Rather, memory is implicated through more generally as it relates to the generative and active behavior of memory in the present. For illustration, why do some places produce comfort whereas others fear? How does familiarity appear at one location but vanish at another? The role of memory in physical space(s) may induce a sense of familiarity, which further expands the notion of phantasy from expressively metaphorical to material. Considering material artifacts and places alongside metaphorical significance forges a more thorough understanding of phantasy. In other words, collective memory considers the mechanisms by which groups retain common understandings of the past. And those underlying mechanisms rely on individual memories (phantasies).

To Maurice Halbwachs, institutions or collectives of people in pluralities are able to retain common senses of the past through such means as rituals, monuments, or stories. A wealth of recent scholarship has advanced the relationship of rhetoric within collective memory studies, including by Carole Blair and Amy Prepon. Halbwachs observes, “we ask how recollections are to be located. And we answer: with the help of landmarks that we always carry within ourselves. . . .” Halbwachs’s popular conceptualization employs a form of social epistemology to situate individual memories within a broader tapestry (175). But he is careful to note that such collective memories are not “mystical” supra-intelligences, or hive minds where memories are house; it is the individual that remembers (but relies on the collective to do so) (48). As James Wertsch elaborates, collective memory relies on mediation. Whether distributed or universalized, some form
of material and physical presence serves as the basis for interjecting the collective into the individual.

Lyrical poets, some of whom were famously banished from Plato’s *Republic*, were in this sense perform a magical and political duty; they were enacting common ideas about the past, both in what “happened” and what was meant in those happenings. The challenge befalling the individual was to negotiate personal memories in the context of shared ones, which quite naturally general political tensions. For example, Alon Confino would more recently argue collective memory studies relies on metaphors of collusions and contestations. To Confino, personal experience and public power equally employ reductionist binaries, ignoring how the personal and the collective result in new wholes. “That a given memory exists, that it has symbolic representation and political significance is obvious, but in itself it explains little in itself if we do not place this memory within a global network of social transmissions and symbolic representations” (1402). Confino continues,

I would like to view memory as an outcome of the relationship between a distinct representation of the past and the full spectrum of symbolic representations available in a given culture. This view posits the study of memory as the relationship between the whole and its component parts, seeing society as a global entity --social, symbolic, political -- where different memories interact. (1391)

Sites of remembrance designed with public memory in mind illustrate these principles, at times neatly (and, at others, less so). Using externalized forms of memory, collectives of various shapes and sizes attempting to protect their heritage against the ravages of time
and forgetfulness may resort to symbolic actions that take place in monumental or ritualistic forms. Halbwachs’s thought generates a thriving industry responding to his theory of “collective memory,” in which he argued that groups with substantive connections (families, religious affiliations, etc.) contain mnemonic tapestries that function as frameworks of common memory.

As a sociological investigation of memory, Halbwachs’s understanding of memory represents a radical departure within early twentieth century studies of memory that study the mechanisms of the internal. Memory is not a residual of the group, Halbwachs would theorize in collective memory, but rather a product of dynamics that perpetuate social memories. The group, through a plethora of rituals and commemorative acts, develops ways of guiding relationships to the past. However, within collective memory, the relationship of individual to collective memories remained hotly contested.

Pierre Nora’s suspicions that forces of globalization and displacement were destroying what remains of memory, collective or otherwise, inspired him to realign collective memory studies. Nora began the work of relocating the framework to particular places (particularly of an archival nature) as locations around which the memory of individuals can “crystalize.” Thereby Nora reiterates not the importance of commemorative places to memory, but the affect of place as an invitation to memory. These loci of memory to Nora serve as anchor points against the maelstrom of collective lethe and homogeneity—forces that transfigure the cultural and historical landscapes with relative ease. Defined broadly, such sites of remembrance may include monuments, preserved locations, museums, etc. According to Jay Winter, sites of remembrance are
“topoi with a life history” constructed with commemorative actions in mind (312). Assorted publics, acting out of a conviction “shared by a broad community” build, maintain, and respond to these sites (313).

Such sites represent not only noteworthy places, but also indicate that the study of their affect opens broader rhetorical questions. To interject an illustration from one such site, I vividly recall from my youth seeing two musket balls fused into one, caused by collision during a battle of American Civil War, on the shelf of a museum. As I calculated the likelihood of that happening, transfixed by the twisted metal before me, I envisioned a smoldering battlefield crowded with soldiers. The cries of the wounded, I thought, surely could not have been heard above the sounds of musket and canon fire because only in sheer numbers could two musket balls collide in midair. I imagined what it must have been like for those poor souls, hurt without available aid as shots rained over their heads. But the fused projectiles could not offer any information about the life of the soldiers who fought, or the causes that led them to the field that day. I had to invoke my imagination to picture the battlefield as the fight raged. History could interject, explaining to me where the field was, how many people were there, and what contemporaries wrote about it. But to be affected, to vividly recall the event in the eye of my mind, my memories—perhaps cobbled from books, films, family lore, etc.—had to be invoked. In fact, I (or for that matter, any museum visitor) could not see those relics without in some way invoking personal memories to give them a meaning and context. I viewed them through the eyes of a child’s imagination. How would a veteran, one who perhaps had participated in battles, see or understand these objects? Would s/he find them fascinating?
Would they allude to luck, in the sense of the expression “three to a match” (a saying commonly understood to mean keeping a match burning for as short a time as possible to light cigarettes, lest the light alert an enemy to their presence)?

When history attempts to contextualize objects or explain events, it cannot do so in isolation, as Jay Winter argues. Winter gives this intersection of history and memory a name, calling it “historical remembrance.” To Winter, historical remembrance is a cultural practice, which “emerges” in the “reconfigured space” between history and memory (313). However, Winter is careful to interject that historical remembrance may happen at a plethora of other places, including when encountering ritual, or “unofficial” sites of remembrance. To Winter, historical remembrance is a “discursive field,” in which “a vast amount of fundamental work [is] still to be done” (314). The operations of sites depend on logics of historical remembrance, which informs (as well as is informed by) knowledge of encountering place. While I agree that historical remembrance is a lucrative way to understand the intersection of memory and history wherever they should occur, I suggest that the dynamics that generate historical remembrance are both rhetorical and needing elaboration (a model I refer to as phantastical). At least a part of the solution includes studying the proximate zone of memory/history (historical remembrance, and public memory).

Naturally, an awareness of individual interpretation does not dismiss the notion of a sanctioned reading of any given mourning site. The historian, artist, and architect of these spaces can attempt to guide the interpretations that take place. And the memory sites themselves may attempt to sanction certain dimensions of heritage against the
ravages of time and forgetfulness through various design elements. In scholarship responding to Halbwachs’s revolt against individual memory, the functionality of recognizable populations of groups remains substantive and vibrant. I argue not against Halbwachs (or a host of subsequent commentators)’s notions of collective memory as useful for understanding cultural forms of memory, instead, I suggest that these socio-cultural frames under theorize their own mechanics—simply stated, those groups with substantive connections (families, religious affiliations, etc.) whose mnemonic tapestries that function as frameworks of memory remains salient, and subject to critique. Alon Confino asserts:

To accept that none of these processes has primacy and yet to understand the meaning of memory, we need to understand all of them as intertwined -- memory as a whole that is bigger than the sum of its parts. This serves as a reminder to realize what is declared more often than practiced, namely the multiplicity of social experiences and representations, in part contradictory and ambiguous, in terms of which people construct the world and their actions. (1399)

But how do individual memories, which extend across a multiplicity of collectives, operate within a single collective that cannot fully contain them? As sociological investigations of memory, Halbwachs’s concept of memory represent a radical departure within early twentieth century studies; he moves toward the ability of organizations or groups of people to share and retain memory. In contrast to, for instance, psychoanalytical perspectives that seek memory as “embedded” or “transcribed” in the subject, collective frames are recognizable through the subjects present in an
organization. Memory is not a residual of the group but rather a product of dynamics that perpetuate social memories.

In the sense proposed by Halbwachs, and subsequently addressed by Nora as well as Winter, the groups that maintain shared remembrances also privilege certain memories through the use of memory sites. They sanction particular tones or structures to those memories. When read in this way, Halbwachs suggests visitors to memory sites become forms of actants, in a way sympathetic to Bruno Latour’s treatment of actor-network theory. A given interface of the collective links individuals: each participating individual certainly has memories, but the forces that congeal collective remembrances to which the individual is a party includes both implicit and explicit patterns that normalize particular remembrances in specific ways. Consequently, through a plethora of rituals and commemorative acts, groups establish ways of guiding individuals to bridge the past into the present.

Within collective memory writ large, the dynamics and relationships of individual to collective (or internal/external) in spaces of intersection remains hotly contested. While Nora saw room for a binary of kept/lost (with lost gaining more traction), Winter began to see an alternative reading in which contestation bred new connections. The globalization Nora critiques and Phillips & Reyes embrace are, to Winter, possessive of a creational or inventional logic. However, in contrast to the efforts to design those logics in the space, the chaos of memory suggests alternative sets of mechanisms (rhetoric) are present which are not the consequences of purely inventional gestures at work. Rather, their ambiances and the pasts their visitors conjure, represent products of interaction that
destabilize the existing memory structures in favor of new wholes. While I agree that the
sites themselves are noteworthy places, particularly when read alongside a dichotomy of
local/global, I am more interested in the study of their affects and the rhetorical
frameworks resulting from these investigations.

Nevertheless, collective memory as a rhetoric of protocol, transcription, material,
and/or metaphor, inevitably lead to a sense of threshold or intersection where external
invokes but is reconfigured by the internal systems. It is this core understanding which so
dramatically returns and reframes the rhetoric of memory to prominence as theoretical and
practical lines of pursuit. Richard III’s recently recovered remains are merely human
bones subjected to the passage of time, and yet bisect multiple lines of memory so closely
woven that the remains become an entry point into a larger collective tapestry. Lieux de
mémoire, whether otherwise unremarkable parking lots from which historically
significant human remains or mnemonic architecture of the subject, extend and
reconfigure the rhetorical canon of memory into an era of networks growing increasingly
global (as corpus of conceptual thought and as material/technological apparatus).

Marshall McLuhan’s global village, it may seem, has taken root at last (or some may
argue). Kendall R. Phillips and G. Mitchell Reyes contest that global flows of migration
and information yield “memoryscape” born of global interrelations. Migratory patterns,
both physical motions of bodies across geo-political boundaries and information through
networked computing, transforms existing memory places (in the restricted sense of sites
designed with facilitating cultural or public memory in mind) to encompass broader
landscapes of peoples, cultures, and objects in Phillips and Reyes argument.
Consequently, they argue, geographically fixed places of memory cannot be approached in isolation.

Through information and media flows, new memories can be found as a consequence of what exists beyond the places dedicated to memory—in the flows of people and ideas, technological intrusions, and the motion of bodies from divergent places. To the memoryscape, “anchor spaces” in the form of built sites, become increasingly difficult to localize. When approached as articulations of the network of individual memories, memoryscapes function as forms of assemblage of an inherently dynamic sort—as the constituent components move and intersect in new or novel ways, the subsequent site as a whole avoids static behavior.

To pose a question begged by collective memory: where does individual memory begin and external world of matter end? The affection of internal and external is situated at places of collision where the binary of internal/external dissolve. Halbwachs’s conception of memory is commonly aligned with an intellectual revolt from his one-time mentor, Henri Bergson. To Halbwachs, Bergson’s treatment of memory was far too individualistic. Social groups, in their interactivities, could serve as repositories of shared and collective remembrances. However, an alternative reading of Bergsonism and its cousin, phenomenology, offers an alternative path for memory that retains a focus on the individual—but, the individual as situated. They open a space for thinking memory as intersecting with and informing perception—these intersections are neither “real” nor “virtual,” but in a third (pending) space that reconstitutes internal and external memory.
In other words, a space opens for thinking memory that addresses Halbwachs’s critiques of subjectivity.

Halbwachs suggests Bergson moved too far into individualistic thought, and seeks socially generated means of retaining memory. Nevertheless, the affect and synchronicity that permit collective memory remain deeply indebted to individual and subjective expressions of memory. The places that allow for a crystallization of collective memory must prove affectual to the individual, which relies on an even older notion of individual memory as a rhetoric. And, these experiences are assimilated into existing memory schemes—from which, groups may sustain themselves by synchronizing, in part, the individual remembrances of their membership. Even in collective form, memory relates to experience (with archives, monuments, cultural narratives, etc.), and experience hinges on memory. When memory returns to a state of affection, then a critical space needed for reviving phantasy reopens.

**A Consequence of Phantasy: Conjoining Motives and Identification**

As described across a broad corpus of histories, including by Mary Carruthers, Jacques Le Goff, Francis Yates, David Krell, Edith Wyschogrod, and Alison Winter, memory can be described as a relationship of loci and phantasmata in the present. Reductionist understandings that explicate loci and phantasmata, in which an experience could be encapsulated and retrieved for future use without concern for the associations of images, overlook a relationship of the past to visual perception in the present. Memory as conceptualized in phantasy entails revisiting the excluded formations that reclaims habits of the mind—how something will be heard or connected to prior experience through
common imagery—which ultimately guide and organize perception. Habits of the mind, however, presuppose two related terms requiring further elaboration: motive and identification.

Kenneth Burke treats the Freudian concepts of condensation and displacement in ways useful to understanding the relationship of motive and identification. Burke suggests that condensation “deals with the respects in which a house in a dream may be more than a house or house plus” and displacement “deals with the way in which house may be other than house” (277). He uses these terms as plus or minus, suggesting that the two emphases “leave no opportunity for a house to be purely and simply a house” (277). In this way, the house of Freudian symbolism relies on metaphorical reasoning. The images represent something beyond what is spoken, often through synecdoche (the notion of a house plus). “Increasingly, however, we begin to glimpse a world of abstract relationships, of functions understood solely through the medium of symbols in books” (270). Condensation and displacement revisit, with only a terminological displacement, a phantastical mode in which the relevant images engage representationally. The images may invoke conceptual resonances more than physical or material ones, as an alternative reading of phantasy’s role in perception. Yet the relevance and salience of images relies on a shared sense of representation.

“We move here . . . ,” Kenneth Burke continues in his essay Freud—and the Analysis of Poetry, “into the sphere of rhetoric (reader-writer relationships . . . ” (The Philosophy of Literary Form 281). Burke’s treatment of Freud, in which the development of images offer a rhetorical function “sensory imagery” plays with a reader’s ability to
“make himself over in the image of the imagery” (281). Form itself when recognizable as such pulls and invokes an appetite by way of expectancy and desire. Burke’s reading of Freud presents a memory paradox of several facets. In part, Burke notes that inviting an original author to discuss the details of symbolic value in a given work may not be possible; but the contexts of those symbols may become accessible and rendered visible even if invisible to the original author. The symbol works beyond and within the author for Freud and likewise for Burke.

Burke uses “purposeful forgetting” as “the only way of remembering,” in which someone learns of what something is by forgetting all alternative possibilities for it (271). In so doing, Burke gestures to a relationship of intent to recollection whose implications necessitate further comment. Such forgetting can be fueled by ancestry, Burke notes, or by experience in which means are “engrafted” or “new starts” (271). Most importantly, the division of ancestry and experience from a phantastical standpoint becomes permeable. Both draw from a desire fulfilled by or repressed under images retained as fruits of the past. Consequently, under the yoke of forgetting purposefully, the creation of images to retain a semblance of the past both employs motive and relies on identification. Phantasy relies on mechanisms influenced by motives and identification and consequently offers a connection through which these terms become co-implicational. For example, Burke sees important limitations in a Freudian approach to symbolic critique and points to masculine dominations both in the process of employing and analyzing symbols. As it relates to ancestry, Burke states Freudian thought clouds “flourished with matriarchal patterns” in concealing “patriarchal terms” (273). The
feminine vanishes in the translation to symbols favoring the masculine; intentionally, the images in such cases retain by forgetting alternative trajectories of the past willfully. The logics of association, masculinity, promote identification while demonstrating motive. Remembering requires images of a particular sort, which occur through eviscerating facets or perspectives of the past that fail to reach a desired genus of identification.

Despite purported shortcomings in Freud’s scheme, Burke sees a need to “introduce minor revisions” to the two key terms of “condensation” and “displacement” (277). Motives underlie the symbolic domains that conjoin memory, rhetoric, and the image, as Burke recognizes in Freud. The question of motives in no small part fuels Burke in his efforts to rehabilitate Freud—which return to Quintilian’s treatment of memory as a part of his broader treatment of rhetoric, in which the power of eloquence interconnects closely with the virtues of the speaker. “We must write,” Quintilian argues for a centrality of memory in *De Institutio Oratoria*, stating:

> as carefully, and as much, as we can; for as the ground, but being dug to a great depth, becomes more fitted for fructifying and nourishing seeds, so improvement of the mind, acquired from more than mere superficial cultivation, pours forth the fruits of study in richer abundance and retains them with greater fidelity. (*Book X Chapter III*)

In Quintilian’s rich metaphor of seed planting, memory becomes a means of cultivation as well as harvesting ideas, experiences, or various forms of content. Quintilian’s project of intertwining virtue with eloquence contains an invocation to memory, “good men, on the contrary, a virtuous sincerity of language will never be
wanting, not (for good men will also be wise) a power of producing the most excellent thoughts” (Book XII Chapter I). In ways remarkably prophetic of Burke’s later concerns with motive, Quintilian observes that “we must not consider merely what cause a good man defends, but from what motive, and with what object he defends it” (351).

Such motives naturally trace either condensation or displacement, as the thing itself being defended need not be the object as-is, but as the object-as related. Parents protect their children, in part by instinct and in part by seeing something of themselves in a defenseless state. Nations defend their borders, seeing not territory but perhaps their way of life jeopardized. Under such cases, the motives underlying actions result from identification—and both identification and motive depend on phantasy’s vital language of representational logics. Troubling the waters that divide identification and motive in turn moves toward an elaboration of memory’s generative nature. External (identification) and internal (motive) stem from a shared source: the logics of building representations foreseen under phantasy.

**Looking Forward Back**

Chapter two addresses the mechanics by which representations obtain their symbolic energia. It considers the relationships of material groundings in greater depth, placing emergence relative to condensation and displacement. However, suffice it for the present conversation to say that a computational model, comparable in some senses to a Platonic approach of incision, remains common today. Memory, in this treatment, becomes a black box from which the past can be retrieved and then applied. Similarly, a storage metaphor would treat collective memory as only to be retrieved from archival and
commemorative sites (in the mind or even in public spaces). These prevailing understandings of memory as places into which past experience are merely transcribed for future recall neglect more ecological and vibrant understandings. Memory’ interrogates the mechanisms by which the past returns to the present. Its logics of association and affect share several principles with historiographical thought. Nevertheless, a number of vital differences exist between a study of memory theory and historiography: for instance, association and affect provokes questions not just of definition but also of the interconnectedness of experience and perception. While memory can concern itself with validity, narration, or explanation, it can also comfortably remain strictly patho-logical and a-temporal. It becomes rhetorical, in substance and function, as a means of understanding place and language as well as the bodies through which it finds articulation.

Loci of memory function as more than metaphors for personal or individual memory. Nevertheless, a reliance on the loci-central approaches to memory of the black box variety overlook shared components of rhetorical inquiry. The phantastical approach both supplements loci and engages the surrounding objects and places through representational image-making. Ultimately phantasy invokes the dynamics of affect in a given place/time. In many respects, my efforts to theorize memory rhetoric as extended from the phantastic tradition gestures towards a broader effort to reclaim the space between rhetoric and “place.” As it relates to the consequences of traumatic public remembrances and diaspora, Marianne Hirsch problematizes the lines between generations of memory by proposing “post-memory.” Under post-memory, individuals
who have had no direct experience with a given cultural event assimilate that event with such vibrancy that it becomes autobiographical. Literally, they were not in the places that memory endeavored to retain. However, phantastically, the places were constructed to accommodate a drive for their inclusion. In Hirsch’s example, the generation following holocaust victims cannot distinguish between the events of their youth and the genocide witnessed by their parents. Through the saliency of their parents’ remembrances and the media forms that bear traces of the events in the holocaust, the children of survivors adopt these “post-memories” as their own. What interests me about post-memory is that it not only disembodies autobiographical memories, but assigns a viral characteristic to them. The memories of one person through a shared experience, namely reminiscence and the sharing of artifacts, allows for the inscription of memories that should fall more directly into the assimilation of historical narrative than personal experience. And, rightly, I could observe that the theory of post-memory has no greater universal acceptance than the related concept of distributed cognition (in which external processing becomes naturalized, in a manner of speaking).

Notes Alex Reid, there are two virtuals—one a question of the subject, and one of the media forms representing individual experience. These two virtualities are not without material grounds, which suggests their interfaces are too expressions of a materiality. It is this third space, one I define in this project as emergent, that rhetorical memory occupies—if its ontology and its significance can be approached. The point I wish to raise here is that virtuality opens space for a new understanding of memory rhetoric by interrogating the roles memory plays in the interplay of media, objects, space,
and subject. More broadly, when read within the histories of memory, they suggest a field whose evolution toward virtuality through subjectivity and social episteme now faces a significant challenge when adapting to the demands of new materialisms and post-human thought. As contemporary rhetorical theory applies a pressure to virtuality and social epistemics accordingly, it also invites a new understanding of memory rhetoric.
CHAPTER 3

ON EMERGENCE

Without order the world of experience becomes a shapeless mass. Music becomes mere noise; a painting becomes a blob of paint; a play becomes a happening. The human mind, the order of nature, social organizations, art, the solar system – all dissolve in a chaos of particles.

—Frank J. D’Angelo

The quality which creates the world emerges as a relationship between [a person] and [his/her] experience. [S/he] is a participant in the creation of all things.

—Robert Pirsig

‘Why do you doubt your senses?’

‘Because,’ said Scrooge, ‘a little thing affects them. A slight disorder of the stomach makes them cheats. You may be an undigested bit of beef, a blot of mustard, a crumb of cheese, a fragment of an underdone potato. There's more of gravy than of grave about you, whatever you are!’

—Charles Dickens

Memory, even when most marginalized at any given moment in rhetoric’s histories, remains presupposed and lurking in the margins of persuasion, in the affects of appeals to character or emotion, or in the conjoined realms of motive and identification. Rhetoric originates in memory and, as the previous chapter explained, a phantastical approach reclaims memory as generative rhetoric that assimilates material and physical realms (regardless of whether natural, artificial, or artful). Operating from within a
tradition of phantasy reverses the relationship of memory as coming from exteriority to one in which exteriority comes from memory. Sensory impression becomes subsumed to phantasy. Consequently, phantasy anticipates memory’s active engagement in perception. Being of memory and informing perception, phantasy extends the influence of the semblance of things more broadly into organizing principles. The approach to memory outlined in chapter two does not suggest that memory cannot be guided by conscious or artificial means. In the alternative and supplemental light described, memory becomes a means of structuring (and not simply responding to) the external world. By this definition perception relies as much on the past as it does on the particulars of a given place and time. It also does not suggest that the external environment is only of memory. On the contrary, physical spaces and realms of agency exist beyond memory’s touch. They express a Gorgian trilemma in that they can never be reached beyond the past’s persistent reach. Any given place is experienced through sensory perception, in which memory becomes a form of guide.

In a 2008 study published in the journal Psychology Today, researchers Helene Intraub and Christopher A. Dickinson explore a phenomenon known as boundary extension. A boundary extension fills the conceptual space between “illusion” and “false memory,” as Timothy Brady and Adena Schachner describe, and occurs when we “extend the boundaries of an image. . . . our memory system extrapolates the view of the scene to a wider angle than was actually present” (para. 5). Intraub and Dickinson’s study found that it took less than 1/20th of a second for a boundary extension to occur. In less than it takes to blink an eye, the memory of the event had morphed to accommodate new
conditions. To Brady and Schachner, the study “thus blurs the boundaries between the initial representation of a picture (via the visual system) and the storage of that picture in memory” and begs an important question, “so is boundary extension a visual illusion or false memory?” A phantasmic tradition of memory would seem to anticipate their response—they note, “perhaps the two [visual illusions and false memories] phenomena are not as different as previously thought.” Further, “the work of Intraub and colleagues ads to a growing movement that suggests that memory and perception may be simply two sides of the same coin.”

Boundary extensions illustrate that memory demonstrates a remarkable plasticity, which resists efforts to render it inert, passive, or inactive. “Typically in [William Carlos Williams’] poems,” Kenneth Burke notes “the eye (like a laying on of hands), by disguised rituals that are improvised constantly anew, inordinates us into the human nature of things” (n.p.). Williams to Burke, “was [in essence] an imaginative physician and nosological poet” (italics mine). A space found between the thing of the eye and the eye itself was no less human than the possessor of the eye. Seeing the object alone was to graft a sense of the human into and onto it. Without retaining or transcribing a new image, which would merely recast the antiquated storehouse model criticized in the previous chapter, memory instead displays interactivity within its parts and with the external environment. The physician finds wellness in poetic form in Burke’s treatment of Williams, and such juxtapositions speak more broadly of the symbolic and the material interactivity phantastic memory anticipates.
The alternative perspective suggested in the previous chapter thus expands the importance of connectivity—both between memory and exteriority, and between the semblances that become phantasy. Brady and Schachner’s juxtaposition of recall and recognition under the auspices of newer terminology harken to a pliable understanding of the past. Burke’s commentary celebrates Williams’ “combined conscientiousness of both disciplines [poetry and medicine], as a man of medicine and medicine man” (n.p.). Consequently, as this chapter describes, emergence can provide a lattice for a generative rhetorical theory of memory through three conceptual parts: complexity, entelechy, and the extended mind hypothesis. This chapter first traces the applicability of an emergent lens to the theory of memory rhetoric introduced in chapter two before more fully explaining its method of employing emergence.

**From Memory to Emergence**

Complex systems have memory, not located at a specific place, but distributed throughout the system. Any complex system thus has a history, and the history is of cardinal importance to the behavior of the system.

—Paul Cilliers

The basic parts of common table salt are poisonous to human consumption until combined. Yet, only in their combination does the salt cease to be a poison. Quite literally, two poisons became a food. How could this be? Stuart Kauffman notes in *The Origins of Order: Self Organization and Selection in Evolution* that order originates from either non-order (chaos) or adaption to disruption. In either case the presence of order of
a like kind is not a prerequisite to the generative process. Like, it could be said, does not come from like through such a lens. Similar calls to think of the lack of order as generative are offered by Malcolm Gladwell, John Holland, and Steven Strogatz—all of whom situate relative absences of organization principles as fodder from which new orders can spring. Larger and sweeping patterns of self-organizing can rely on the smallest of bodily cells. A mere rewiring of a neuron can lead to systematic changes in the body. For the oft-cited the butterfly effect, which theorizes the potential for climate change as resulting from the mere flapping of wings, small re-associations break and generate patterns of widespread impact. At least a part of the recent interest in emergence is not so much with its newness—indeed, emergence’s roots can be traced to mereology. Somewhere between Heraclitus’s presuppositions of perpetual change and Democritus’s or Empedocles’s interests in atoms, the notion of interactivity between parts as generative exists in Pre-Platonic thought. John Stuart Mill and George Henry Lewes revisit it and, as Terrence Deacon describes, “struggle with the problem of making scientific sense of living and mental processes” (147). Later Samuel Alexander, C.D Broad, and Conway Lloyd Morgan (the British emergentists) issues of discontinuity fuel an interest in post-mechanistic (also known as non-linear) emergent thought.

Likewise, memory rhetorics customarily consider both non-order (forgetting) and adaption (remembered). This section expands the conjecture that memory can be modeled and theorized productively using an emergent lens. Beyond supplying a definition and context for emergence itself, the linkage and degree of applicability between terms (emergence to memory) becomes an area of interrogation. Emergence can certainly apply
to a broad range of phenomenon beyond memory and those non-memory cases of emergence contribute to the vocabulary employed throughout this interrogation.

However, emergence develops more fully the generative rhetoric of memory introduced in the previous chapter. Kauffman invokes emergence when he suggests such point of non-order or disruption become generative of new orders. Emergence, which postulates that order can arise from the interactivity of parts, exists in several forms. For instance, it may be displayed when any given order begins to approach a chaotic state through interactions or chance encounters, but adapts to the conditions rather than falling into disarray. Along an opposite trajectory, emergence can also describe how chaotic environments lead to order (as articulated by Nassim Nicholas Taleb). In this alternative case, an order may appear to spring almost magically from non-ordered states.

Emergence offers an alternative paradigm to several common (mis)conceptions: that order remains stable or results from a guiding hierarchy, chaotic conditions necessarily produce only non- or dis-order, and that the parts of an order equal the order itself. Emergence offers a lens for the creation of orders that can be born of disjunction instead of junction; essentially the only basic need for emergence to happen is the existence of some form of interaction. David Blakesley and Thomas Rickert offer the illustration of a flock of birds in motion. The flock is irreducible to just singular birds flying in formation—the flock exhibits remarkable characteristics of organization and coordination. Yet the flock consists of birds following simple rules: they maintain the same speed, keep distances and proximities stable, etc. From these rules, the birds
become a flock rather than an aggregate of individual birds. And yet, at a moment’s notice, they may become disorganized: birds flying into all directions cease being a flock.

Fig. 3.1: “Speicherkooog Flock of Birds” by Dirk Ingo Franke

Despite operating on the verge of falling into disrepair, the flock displays recognizable (some may say magnificent) patterns. Fig. 3.1 shows a flock resembling an arrow with a single bird at its front. A grafted human logic would suggest the lead bird leads in a sense of controlling or commanding the flock. However, birds lack that form of hierarchical thought. We could make the same mistake in reference to “Queen” ants. As the most protected and unique member of an ant colony, we could assume the colony maintains a matriarchal structure. And we would be quite wrong in that thinking, too!
The birds pictured over Rome offer a wonderful window into these dynamics of emergence. When no longer seen as collections of individuals but as an emergent whole, the flocks display remarkable adaptive characteristics. Only by photography are they held in stasis. Otherwise, in time, they swirl, change directions, and “at random” display patterns. Random, being a term more of chaos than complexity, can only loosely apply these conditions—these formations are not by chance (nor are other emergent behaviors). Rather, it is the allure of randomness that is of interest. For much of recent thought, emergence was aligned dismissively with a form of mysticism. These critiques most often challenged early emergentists for whom the processes of emergence were incalculable. Alternatively, with recent advances in computing and simulation as De Landa notes, the material side of emergence can be modeled. Formerly mysterious processes under the umbrella of randomness suddenly became recognizable and predictable. Weather could be forecast with greater accuracy, for one illustration. For
further illustration on the subject of considering orders born not of random chance or intelligent design (decree), in what ways can we understand an ant-bridge?

Fig. 3.3: “Ant Bridge” by Geoff Gallice

Ants cannot communicate in the ways practiced frequently by humans in writing or speaking. They cannot diagram, or brainstorm. And they certainly cannot speak or write. Yet, when confronted with a gap to transverse, they display the ability to cooperate in order to build a bridge of their bodies. Oftentimes so-called warrior ants (noticed for their larger size and stronger pincer bite) ring the moving column prepared to strike in case of invader. Workers either form the bridge or carry food and other supplies across the bridge. It takes a remarkable process of coordination to bring these functions into an alignment where the overarching assemblage results. They communicate via senses more akin to human oratory through pheromones and physical contact. Without resorting to
pure chance or a central governing authority, they display an ability to build structures of their colony as it moves simply through rote senses and instinct.

If George Kennedy’s treatment of rhetoric as energy were to be applied, in what ways could the bridge be viewed as rhetorical? Applying the term “bridge” to discuss the function of the assemblage certainly contains rhetorical moves that draw upon what may simply be lumped memories (if not for the subject, an ant). Their conjoined bodies satisfy the essential elements of a bridge, of course. However their shape in fully emerged form no way resembles most contemporary styles of bridge. And the ants employ approaches to construction unique to their species. Both articulations of energy, as the naming to understand their behavior or their the means of their coordination, employ what could grossly be lumped under the auspices of memory. Pheromones, touches, and other mechanisms of delivery would be moot had each ant not known how to respond. The living bridge made of ant bodies responds to the specifics of the environment, and the interactions between ants within that space. Encapsulated within the margin at oft-described points of tipping or bifurcation, the edge of disorder (chaos) offers a lens emergent thought which also gestures to mechanics of memory. Much as the flock quickly develops new orders (adapts) at the presence of disruptive influences (of predators, new food sources, wind currents, etc.) and the ants overcome obstacles, emergence suggests that new organizations result from the interjection of unexpected sources. Instead of the system falling into a chaotic (dis)order, a new and more complicated system results—the ants forge structures to cross crevasses.
The systems that exhibit emergent characteristics, flocks and ant bridges for
texts, are therefore called complex (as the intermediary of simple and chaotic). Thus
complexity exists at the intermediary of order and disorder, and emergence animates the
system. Emergence, as a method for theorizing memory, considers the movements
between order-as-is and order-as-will-be. Manual De Landa observes that “as populations
of neurons grew and proliferated inside living creatures, gathering into layers and folding
into elaborate three-dimensional structures, they provided an ever richer substratum for
the growth and proliferation of more ethereal entities: memory” (94). To De Landa,
memory represents an intermediary between the building blocks (neurons) and the
wholes (species, cultures, societies, etc.). Both social fabrics inherent to any culture and
assimilations of environmental queues by the individual represent not different
mechanisms, but differences in kind and scale. The same driver is present for both
operations—emergence fuels memory. He asserts, “since we will now be concerned with
larger wholes with their own emergent properties the details of how individual agents
perceive and memories can be taken for granted” (110).

Memory, it would seem, becomes entwined with telos—final causes—in De
Landa’s treatment of emergence. However, De Landa quickly restricts emergence to the
realm of the non-symbolic. Yet, as already articulated, such realms are unreachable
without the presence of memory. Thus although emergence may consider physical and
material properties, it cannot do so without a symbolic and non-material dimensionality.
By definition, emergence presupposes the absence of a central organizing force. Rather,
broadly defined, it looks at the phenomenon of self-organization. In more rhetorical
terms, it can consider the phantastical manifestations of memory—the non-conscious given materiality through extension into perception. De Landa moves from simple units (cells) to larger wholes, presuming memory to be a form of glue holding parts to wholes.

**Grounding Emergence: A Theory of Complexity**

I think the next [21st] century will be the century of complexity.

—Stephen Hawking

By what means could a contemporary emergent lens be approached? Within the failings of simplicity, an alternative paradigm—complexity—offers resources for the self-organization of systems. As a foundation, complexity begins with an understanding that the whole is greater than the sum of the parts. Through interactivity, often in unexpected ways, the whole of complexity traces patterns and orders that are generated from but no longer understandable as constituent parts. Emergence fuels complexity, and so complexity is a point of entry by which to understand emergence. In this section, complexity is situated in reference to systems that reject conventions of linear thought. Of particular note are the ways in which complexity theory has already bled into rhetorical thought.

Linear systems are reducible to their constituent parts. One can approach linearity symmetrically with simplicity. The parts themselves reveal the system as a whole. Working reductively, any linear system can thus be broken into manageable parts. Linearity also consumes a binary logic—a closed-ness, whereby parts either are or are not in the system. Consequently, linear systems do not respond well to adaption. To invoke comedian Bill Cosby’s treatment of his car—it exists in one of two states: broken or not
broken. Linearity contains the same issues as that of simplicity. And in contrast, complexity offers a rich alternative. To say complex systems are non-linear is to offer several clauses of significance: they are irreducible to the sum of their parts, they are “open” systems of an adaptive nature, and—for the purpose of this argument, most importantly—they exhibit emergent properties.

Complexity offers an alternative to reductionist tendencies, which may argue that ecologies and contexts of rhetoric are sharply divorced from subjects. Such treatments ignore the affective nature of subject and context, reducing towards one or the other. Music of the sort I read about in the latest reviews exist beyond my sphere of engagement; I only learn about them through reproductions and commentaries about it in technologically enhanced domains. When this happens, I invoke a great domain of reductionism—an “I” of psychological concern. An exponentiality rather than a linearity, a complexity rather than a simplicity, results. The “I” and the “ecology” interacted, and forged new wholes (symbolically and materially). Mathematically, linearity and exponentiality are not kindred spirits. Similarly, reductionism and simplicity are equally at ends with a rhetoric informed by complexity.

Within rhetoric’s various manifestations, gestures towards emergence can be found as early as Richard Lanham’s treatment of complexity in his essay “The Edge of Chaos” and subsequent text *The Economics of Attention*. To Lanham, complexity interjects new questions of transaction between the social, the subjective, and the material; it has the potential to reframe and revitalize these (and other) rhetorical terms, and generate new ones. Lanham’s examination of complexity begins to open space for
connecting emergence with rhetoric. Understandably, his point of entry—attenuation—is one steeped in classical approaches to rhetoric and memory. Lanham suggests a transition is well underway across the spectrum of humanities and sciences. Lanham calls this movement the dawning of an “information society” whose citizens are “drowning in information, not suffering from a dearth of it. Dealing with this superabundant flow is sometimes compared to drinking from a fire hose” (227). Instead of a scarcity of information, Lanham describes the presence of a different sort of limiting factor – that of attenuation – which he works to explain.

Perhaps unsurprisingly, Lanham uses the connections between language and persuasion as the basis for his theory of attenuation (structures of attention). Attenuation, by Lanham’s interjection, probes mutually informing common grounds across the sciences and humanities. To the sciences, continuously improved computing power enables simulations of systems once thought to exceed human capacity for understanding and buck prevailing uses of reductionism and simplicity. Reduction and simplicity can be placed on one side of a proverbial fence, where larger wholes are broken into constituent parts as methods of empirically probing subjects of study. At the opposite side of the epistemological fence, complexity, suggests interactivity between parts of a whole render the whole irreducible to the parts. Lanham observes that complexity couldn’t be approached in the sciences until sufficient computational power was developed to permit modeling and experimentation with simulations. Simulations represented the next generation of scientific inquiry, in which interactivity could be liberated from the murky depths of confounding variables. Simultaneously and similarly, Lanham’s attenuation
generates a treatment of communications across media that assails what he calls an Enlightenment ideal of clarity and brevity in style, instead replacing it with artistic oscillations between “stuff and fluff” born of organic and rhizomatic evolutionary patterns. Complexity to Lanham represents a corpus of perspectives loosely linked together without a single unifying theoretical presupposition (which, like rhetoric, often retreats in stasis to questions of definition).

Although Lanham is neither the first nor most cited commentator to mull links between rhetorical theory and new forms of artistry across media, his thought offers an early attempt at invoking complexity theory as a unified tradition. As Lanham argues, persuasion requires seeing the subjects of discourse in particular agreeable ways (227). Even within Aristotle’s classical articulation that rhetoric is the faculty of seeing the available means of persuasion of a given case, the concept of attention remains central. Aristotle employs a visual metaphor, sight, as in to “see” alternatives in a given case. Ergo, training can expand the rhetor’s knowledge of Platonic cookery, the decidedly less alluring perspective of rhetorical functionality observed in the Gorgias in which the capable rhetor engages in what Wayne Booth terms “rhetrickery,” is born of a rich visual metaphor. Lanham seizes this inroad to move past persuasion, and instead defines rhetoric as “economics of attention structures.” To Lanham’s information society, the volume of things which can be paid attention to far exceeds the capacity of which instead delineates both what information to notice and how to assimilate it into a larger whole. Information is not scarce, Lanham feels. On the contrary, it surrounds and immerses beyond the capacity of any person to soak it all in. In a particularly rich metaphor, to
Lanham the study of attention structures calls forth a “new operating system” (247). He uses this term to describe attention structures by way of human-computer interaction, and in so doing, begins to build a case for placing human subjects in processing roles, supplanting productive ones.

These systems are not products of electronic discourse or restricted to some forms of new writing. Rather, the floodgates of information reclaim an older understanding of language lost along the way: that ways of seeing rely on attention, and that attention can be influenced through rhetorical means that both assimilates and adapts to the information flows they attempt to manage. Equally importantly, beyond the adaptability that grants them a dynamic edge, they are both necessary to and exposed by the information society. Lanham sees their rise not as the latest trend in rhetorical thought, but an exigency for why rhetorical training is “of real use” (228). In this way, perhaps to call them “new” operating systems is a misnomer.

Lanham carefully notes, “this new acculturation of attention goes much deeper than electronic text” (235). Considerable scholarly attention has been devoted to the methodologies and theories of rhetoric in digital or new media domains, much more so than I endeavor to discuss here. However, my interest is less in discussing those particular types of rhetorical situation than pointing out that proficiencies in them again depend on logics of attention. Within a period of time, it is possible to learn forms of electronic communication and writing and stay current in them as they iteratively progress. The user can learn programming languages, coding, and the means of constructing digitally native texts. Such texts can be hyperlinked, shared, tweeted, and
delivered through any number of means to a plethora of decentralized audiences.

Naturally, the programmer-writer who does these things does so at the expense of other possible pursuits. In response, it could be argued that efficiency is an answer. With practice, the writer becomes quicker at writing (whether in codes legible to computing equipment, or languages processed by human audiences). To this I would agree, and add that the writer has assimilated a stronger sense of certain types of writing – they are attenuated to acting within certain parameters, or producing certain forms of texts, or using certain tools. They have become, again, attenuated to certain dimensions that promote or respond to production of their texts.

Lanham links attention structures as foundational to the two other consequences of the information society he discusses: complexity in the sciences, and a new theory of communication. To the latter, the theory of communication, Lanham assails the classic “conception of self-effacing, ideally transparent, in truth ideally non-existent language – the ‘CBS’ or Clarity-Brevity-Sincerity Model for language which fits so well an industry society that makes things” (241). He continues, the CBS Model “has no place for periodic structures, for all the careful and ‘sophistic’ rhetorical figures which symbolize … which symbolize the higher patterns of thinking that literacy creates” (241). Moving towards an information society requires a wholly different understanding of communication, where so-called ‘good’ communication or writing is a richer concept. Lanham notes that words, foundations of writing, are the “goods” in an information society. Their operations, however, are “ambiguous” (229). They assume new meanings, bump into one another, create connotations and otherwise behave independently of the author’s intentions.
With information society defined largely as a decentralization of the human subject, it should come as no surprise that any given author’s control over her or his primary paintbrush becomes exposed as illusionary. Language grows beyond the writer, and the writer must learn to adapt to those motions. Lanham graciously affords a rhetorical precept for doing so: a replacement theory for communication. Entitled a “bi-stable illusion,” Lanham’s approach calls for a “self-conscious/unselfconscious oscillation between AT and THROUGH vision” towards language (241). Attenuation becomes not just the culprit for the problem in that it explains the motions of language beyond and outside the authors in question, but that it opens a door for an alternative to the CBS Model. To this, I would add my remarks here on the subject are admittedly truncated. My interest in raising this connection now is to illustrate the common ground of complexity in the sciences and a theory of communication, and instead dedicate my attention to this concept in greater detail. But more importantly, the road beyond attenuation leads us towards revisiting symbolic action’s material groundings.

Attenuation’s limitations interject two connections with pronounced implications. Both of which require further thought in these pages. First, Lanham’s notion of attenuation does more than simply critique basic information theory as it relates to human communications (a topic about which extensive work has already done), it extends rhetoric into an age of information as material construct, and radically argues for a centrality of rhetorical thought across the binary of the sciences and the humanities. Byron Hawk’s treatment of the rhetorical turn towards materiality largely adopts network theory, assemblage, activity theory, and several closely related paradigms to inform this
intermediary space between (but connected to) the scientific and the humanistic. Further, Lanham’s theory represents an early attempt to connect rhetoric with developments in complexity.

For demonstration, Lanham observes of earlier eras “stuff” mattered whereas “fluff” (leisure, style, etc.) could receive lesser treatments. Loosely echoing Bacon’s tentative forays into empiricist thought, science could tell us about the stuff and rhetoric could tell us about the science and the stuff. But were stuff and fluff two different substances, Lanham would have us ask, or were they social (and forging resulting whole through that sociality)? Could stuff be explicated from fluff to get a sense of the whole in an idealized form? A core term to the extended mind, attenuation, illustrates certain non-linear problems (which is, itself, a consequence the propensity for matter to form from other matter, and affect surrounding matter). Such situations attempt to understand the dialogical role of contexts (scenes, whether of the real or the virtual) and subjects (actors) in any given situation. James Berlin, James Gleick, or Richard Lanham’s are but three of many theorists interjecting applicable terminologies and lenses on the interplay of subject and context that lead to order by way of non-linearity. In each case, attenuation represents a vital extension, and privileges certain forms of information as meaningful or significant. It is an abstraction, a signification for that which would tune the surrounding noise from Josh Bell (instead of subjugating his work into the surrounding noise). Conspicuously absent, however, are matters of scale and affect.

In what Berlin terms a transactional model, reality is discovered “in the interaction of the features of the rhetorical process itself – in the interaction of material
reality, writer, audience, and language” (155). For transactional approaches, longstanding linear binaries of subject/object (actors, actants) and reality/virtuality (scenes, situations) remain solvent. However, linearity itself (wherein parts of a whole can lead to understanding the whole) is rendered problematic. Informatics and transactional approaches seemingly reinforce longstanding linear binaries of subject/object (actors, actants) and reality/virtuality (scenes, situations). However, linearity itself (wherein parts of a whole can lead to understanding the whole) is rendered problematic in Richard Lanham’s work. Thomas Rickert would revisit the notion of attenuation and add, “it is always ongoing, and achievement of some sense of harmony or synchronicity would, on this account, be fleeting” (8). Lanham and Rickert observe that data, noise, a range of mediated works produce a dynamic system of self-adaptive attenuation, a possibility that invites further consideration under the rubric of complexity. It does so by observing that rhetoric’s long history of definitional and ontological angst often stems from comparatively safe harbors of persuasion.

At its face, the Berlin taxonomy aligns closely with an approach discussed by Gleick, whose mold would similarly suggest that audiences cannot perceive beyond the restrictions of their attention. But where Berlin responded to poetic, literary, and cultural ideologies, Gleick employs core theories derived of non-human interactivity. At its inception, information theory approached questions of physical (material) transference instead of perceptual or cultural dialectics. Using now familiar languages of bytes, protocols, information theory underwrites contemporary computing. A host of writers inspired by Shannon Weaver’s sender-receiver model of non-human communication
would suggest or Alan Turing’s computing machines extend information theory into human domains as metaphors for communication. It was not a question of perception in the sense of hearing music to the audience Bell encounters, Gleick suggests, but of the background becoming indistinguishable from the foreground – or, a flattening of noise inspired by the limitations of the audience. Yet these models were not conceived in rhetoric, or approached mnemonically.

At first glance, these may seem like waters of an inventional nature. For clarity, the efforts to work through memory to theorize emergence represented in this work are not at the expense of invention; rather, invention presumes an organizer—the agent. However, not all change requires a central organizing figure (as emergence demonstrates). Instead, the waters become somewhat post-inentional. As memory becomes distributed beyond the subject, invention (like agency) becomes difficult to situate in the exclusive domain of the doer. Invention can guide the loop of perception and recognition by selecting particular symbols and arrangements to carry forth meanings; but it is not and need not be the primary driver of how order originates. As emergence suggests, memory alters and offers new connections of symbol. The perceptual and experiential apparatus to which invention is beholden becomes vibrant, by way of mechanisms I am attempting to illuminate. One way, mechanistically, is by decree. Yet such decrees rarely stand against the passages of time, or against the ability of language itself to adopt fluidly. An alternative frame remains available. Emergence, it at least in William A. Covino’s treatment of magic, plays a greater role in connecting experience by way of language with shared or individual states of experience than may be
found in decrees. Emergence connects the dueling memory extensions of attenuation or affect, in which violations of or perpetuations of expectancy.

Berlin positions his vantage points as allowing for “a closer focus on the rhetorical properties – as distinct from the economic, social, or political properties – of the systems considered” (6). The rhetorical, to Berlin, interrogates how to apprehend the “real” – as found in the external world of “material objects” (objective), “truth within the subject” (subjective), or “point of interaction of subject and object, with audience and language as mediating agencies” (transactional) (6). Berlin’s taxonomy, born of a decidedly epistemological lens as he himself notes, treats the audience as either unaware of or uninfluenced by the sound. Only one of these two failures is found in subjective or transactional theories of rhetoric, respectively.

As a second consequence of the information age (and extension of attention structure), Lanham traces a development within the sciences towards complexity. He observes:

what seem[s] to be happening in the sciences [is] a movement from the ‘philosophic’ thinking of Newtonian physics to the ‘rhetorical’ thinking of molecular biology. Physical science had spent three hundred years looking for its lost keys under a Newtonian lamppost, not because it had lost them there but because, as the old joke has it, the light was better. (249)

Lanham notes, the hard sciences (so-called) spent much of the past three centuries (to select round numbers) focused extensively on the questions they could address – things
accounted for through linear, mechanistic interactions. Dynamics, like weather patterns, were very difficult to explore under such a lens.

However, within an information society comes a rise in computational ability that permits more extensive modeling. It no longer benefits many, if not most, sciences to focus extensively on the questions it can address linearly (through simplification, looking to constituent parts to understand the whole). What becomes possible, and desirable, in such a world is an examination of the patterns of wholes – behaviors that account for interactivity, or that which can be found between the parts of the whole, as well as between the whole and the external environment. Lanham notes this is a computer-driven motion, in the sense that modeling and simulations only available through the computational power of a machine could allow scientific explorations into it. Such conditions cannot be replicated in a lab, but they can be programmed.

The ambient networks that invite complexity are prolific, and foreseen through the hyper connectivity theorized in the works of Duncan Watts and Albert-Laszlo Barabasi. To Watts, interfaces collide so frequently that they are easily overlooked as a matter of routine. The node, or crux of these interfaces, Barabasi asserts, represents places from which new orders emerge. The interface represents place of a particular sort: areas when multiplicities of memory (places) become a singularity (place). Naturally, the term itself harkens to a display of some technological sort. However, as I use the term more generally, I view it as a conceptual abstraction. Interface is the façade, the entry point, or the pronaos of place. A critical rhetoric of ambience, with which this chapters is
concerned, extends but rehabilitates memory from antiquities of rhetoric to present contexts of inhabiting a (any) place.

Other scholars of rhetoric, such as Byron Hawk, Margaret Syverson, Thomas Rickert, David Blakesley, and Nedra Reynolds, follow the track of probing complexity as a rhetoric. Broadly construed, from this corpus of thought, a possibility for the construction of new histories and theories of rhetoric begins to take shape. In the years since Lanham’s essay was published, new materialisms have both proliferated as a transdisciplinary field and influenced rhetorical scholarship. Complexity continues this trajectory, allowing for a recasting of borders as interfaces rather than divisions. As partially derived from a history of rhetoric, Lanham’s treatment of attenuation results from metaphorical senses of computer “operating systems.” He endeavors to continue Walter Ong and Eric Havelock’s sense of electronic literacies, and, in so doing, interject a different sense of division. His operating system metaphor, an approach that echoes an interfaced approach to prominent divisions, suggests an inherently dynamic nature that both mitigates and adapts to the flows of sensory data that mark his information age. As in theories of networks, attenuation to Lanham is akin to the affects born of interfaces in complexity.

**Entelechy: Emergence and Symbolic Action**

For I take it that, just as each good poet speaks an idiom of his own, so it is with each symbol-using animal—and there is a kind of reciprocating relationship whereby the Self selects its key words, and they in turn become formative, to shape further developments of the Self, along with countless such unchartable
interactions, including reactions back upon the behavior of the Self’s sheer physiology.

—Kenneth Burke

According to the Second Law of Thermodynamics, entropy (a measure of disorder as related to energy) in any given isolated system increases until it reaches a maximum value. Simply stated, the Second Law presumes all systems contain within their borders the tendency towards equilibrium. Work is needed to push a given system into disequilibrium, in at least a physical sense of the term. Yet a paradox was introduced by James Clerk Maxwell to showcase that the second law has only a “statistical certainty.” Perhaps unbeknownst at that juncture, Maxwell’s “demon” had interjected the field of chaos into thermodynamics. In Maxwell’s formulation, a gate with a keeper divides a container of gas into two parts. The keeper allows molecules that are moving faster to move to one side of the container, while keeping the slower moving ones on another side. Technically, no work was done—the molecules divided themselves. In Leó Szilárd’s famous response to Maxwell’s demon, work was done (but in the form of thought). The gatekeeper had to recognize, in some fashion, that the molecules were moving at different rates. Thought itself was given a thermodynamic, physical nature—even if in the form of a concept, in order to balance the needs of an accepted law with a paradox presented to it.

Thought as energy, energy as thought: the congruence of conceptual with material bears directly upon the problem at hand. Attention structures, defined as dynamic operating systems for information, fundamentally inform Lanham’s gestures towards a
conjoined space between the sciences and rhetoric. Or put more accurately (and strongly), operating systems serve as *cornerstones* of his broader project. Lanham senses attention as the limiting factor to assimilating informational floods into some form of meaning. However, Lanham also observes that these structures demonstrate emergent qualities. The attention structure, it bears noting, is the mechanism for doing physical work Szilárd forecasts. To more fully flesh out this interactive interfacing of the symbolic and the material, I draw from Kenneth Burke’s concept of entelechy.

Attention structures accept that the volume of information projected in a given moment exceeds the processing capability of the individual. Therefore some means of organizing the world becomes necessary—the demon becomes manifest. Attention structures, as Lanham defines them, resemble the schemata of Fredrick Bartlett—means by which to apprehend the world—and return to the canon of memory in noteworthy ways. Lanham builds his argument from a point of departure with “persuasion,” following a trend of surprisingly little attention in networked rhetorics towards the role memory can play (or how to define memory for that role). To explore the emergent mechanisms of memory as made manifest by Lanham, it becomes necessary to more closely consider the relationship of the external and the internal. Assume that the work is done at the point of the gate: the interface between the two. However, rather than the internal (memory) being inert in contrast to the external (environment-as-perceived), presume memory also accepts the gate-keeping role: perception is internalized only to the degree permissible by memory, and in so doing memory becomes reformed. The work
done at the keeping of the gate, in which memory expands into the external world, also consists of some exertion of energy.

For explanation, when considering the space of two spheres—one of cultural or social construction, and one of genetics—biologist Edward O. Wilson observes a proximate zone of co-evolution. As he suggests, “culture is created in by the communal mind, and each mind in turn is the product of the genetically structure human brain” (*Consilience* 138). Paradoxically then, as Wilson gestures towards, the space of memory involves an intersection of the material and the symbolic. However, to Wilson, these constructs are in their own right always in motion, with the other inspiring changes in trajectory. What, we could ask Wilson, leads to the assessing of genetics or culture as primary? His answer is a form of creative non-answer, born of velocity. Culture simply moves faster than genetics, but both exhibit protocols for modification in response to the other. His answer situates the degree of separation as reflecting the rates of cultural and biochemical adaption. He continues, “culture allows a rapid adjustment to changes in the environment through finely tuned adaptions invented and transmitted without correspondingly precise genetic prescription” (139).

Culture, in the sense Wilson uses the term, references a product of Kenneth Burke’s symbolic action. To Wilson, something becomes cultural by virtue of identification—a concept not far removed from a core of Burke’s thought—and shared language. These traits promote a uniqueness of what it is to be human, Wilson notes. However, it is at this point that Wilson and Burke significantly part ways. As Burke asserts, the basis of symbolic action is motion—which he defines as of the material,
physical realm from which symbolic action becomes possible. Motion exists before symbolic action to Burke, and will persist beyond the symbolic actions made by the species. Conversely, to Wilson, the realm of the physical—his genetics—remains a separate construct accessible beyond the symbolic. I would suggest, given the textual means by which he produces a sense of the genetic, such a position is one inconsistent with the necessity of symbolic action. Or spoken more plainly, the actions taken to discuss motion are not of motion, but of symbol—thus, the object cannot be motion, but remains symbol.

Fig. 3.4: “The Treachery of Images” by René Magritte

Symbolic action in Burke’s articulation stems from but becomes irreducible to motion—which is to say that it depends on it, is of it, but cannot revert to it. Wilson conversely seeks to carve a guiding space of dynamic nature: the space found between action and motion, in which the symbolic can affect motion’s material domains. In this reading, Wilson’s realm of pure genetics offers a type of reversion into motion. Burke offers a similar position but suggests that entering the symbolic becomes a one-way street. Through actions like naming or defining, things like the difficult to theorize “I” discussed in my first chapter exist as more than the biological organism presently typing
these keys on the page—yet, the symbolic floats free from them. The originary thing moves, but so too do the associated symbolic actions.

In both articulations, the space between the symbolic and the material becomes generative. Burke explains that “a social relation is established between the individual and external things” (Grammar of Motives 237). Relationality, Burke observes in his treatment of George Herbert Mead’s Mind, Self, and Society, constructs and reconstructs (“to a degree”) the individual by virtue of his “becom[ing] aware of himself in terms of them” (237). He writes that “his attitudes, being shaped by their attitudes as reflected in him, modify his ways of action” (237). Language to Burke represents the “major social instrument” from which relationality stems (GM 238). When the symbolic can no longer comfortably consume the material, the symbolic undergoes a metamorphosis. And given that the material remains in motion, presumably the symbolic cannot remain stationary. Inevitably, even if the symbolic were to reach a plateau in which it could rest, the material realm would necessitate its evolution. Likewise, the non-symbolic motion from which symbolic realms emerge create the affectual zone of material and symbolic. Both cases stem from the same conceptual location and mechanisms: entelechy and emergence.

Emergence addresses the affect of one thing on the other when the result cannot be described through the originary parts. Common examples include flocks, hives, and schools (of birds, ants, and fish). All can be described as collections of individual parts. Yet their behavior as a whole cannot be understood just as a congregation of discrete units. Bird flocks adapt to changing weather patterns, ants work socially to accomplish
great feats, and fish deter larger predators in packs. A fair visual representation may seemingly be that of the pulled rope’s converse. When one side moves in proportion to the other, emergence has not occurred—not all order, of the sort arranged by the motions of the pulled rope, come of emergence. Such is rarely the case when entering the realm of symbolic action, which humans as they develop memory enter. It is the realm from which orientations stem; but those orientations cannot be simplified to an aggregate of the materials that inspired symbolic action. Orientations become inevitably informed by symbolic actions.

John Urry briefly describes the consequences of “attractors” when explaining emergence. Attractors exist between order and chaos and, as the name suggests, attract a given system to equilibrium between the two extremes. Fritjof Capra describes these as “visual shapes” in a system’s pattern. To Capra, attractors animate, or lead to “living systems to be analyzed as functional, open, operating far from equilibrium and, most significantly, self-generating” (9). A simple metaphor may be the pendulum: the system oscillates around a simple attractor (the base of the arc), which then leads to an understanding of the system writ large.

Regarding what he elsewhere calls entelechy, Burke explains that “a region of ambiguous possibilities” invokes realms of incompleteness—where beginnings are “metathesis for ‘chaotic’” (GM 242). It is, Burke notes, an application of “potentiality” (defined by way of Aristotle, as the “possibility of doing something”). Within this realm of “the incipit, or attitudinal” is the realm of “symbolic action par excellence; for symbolic action has the same ambiguous potentialities of action” (243). Burke links this
realm to the force of images—a term of general interest to studies of memory. In essence, the link between the realms of action and motion—the same realm of attenuation maintained by Lanham—relies on incompleteness and potentiality.

These complications—of symbolic action’s genesis in motion, and entelechy’s development as a part of a broader corpus in human motives—suggest a rubric by which culture and genetics (symbols and motion) can be approached as some thing (instead of – things). The notion of a living system hovering at the space between chaos and order suggests that a tipping point is a generative space. The resulting construct can be examined as something other than a zero-sum game; a pulled rope may move disproportionately from one side to the next. In essence, the rope becomes more of a loop open to both inside and outside influence. Symbolic, motion, and a third term—interactivity (of the two) conspire to produce unexpected consequences. Expanding memory to recover its primordial non-symbolic, unconscious, and active presence then brings forth an interactive zone that conjoins motion and action as well as nurtures emergent possibilities. Moreso, it is zone in which the extended nature of memory gains particular sway.

Entelechy offers then grounds the work done at the points of connection (external and internal)—at which emergence transpires. First, the realms of motion and symbol conjoin to display generative characteristics. Second, the logics of memory serve as topoi for the mechanisms of entelechy that interject symbolic evolution either mimaetically (in response to other symbolic interventions) or in response to non-symbolic motion. At
issue, a problem further explicated in the next section, is an internal consumption of external realms through the work of the distributed mind.

**Beyond Brainbound: Emergence and the Extended Mind**

But when you separate mind from the structure in which it is immanent, such as human relationship, the human society, or the ecosystem, you thereby embark, I believe, on fundamental error, which in the end will surely hurt you.

—Gregory Bateson

Exploring industrial ruins and structures made me look at the city as one living organism. I started to feel not only the skin of the city, but also to penetrate the inner layers of its intestines and veins, which swarm with miniscule life forms. These spaces—abandoned subway stations, tunnels, sewers, catacombs, factories, hospitals, and shipyards—form the subconscious of the city, where collective memories and dreams reside.

—Miru Kim

Speaking to the E.G. Conference in 2008, artist Miru Kim observed that her curiosity about dissecting animals and love of New York City converge in her art. She began to realize within this convergence that she could approach the city as “a living organism,” and wanted to “dissect it and look into its unseen layers.” Radically, perhaps, her thought turned to emergence within the recognition that urban spheres can be viewed as living systems of a merely higher order. Cities are, in part, the product of design—builders, designers, architects, and a host of other groups contribute to what will become the urban environment. Yet, those planned efforts cannot account for other realities to the
city: human conduct, the economics of buying or selling real estate that in turn leads some areas to remain perpetually new, the natural forces labeled “decay” that could as easily be called “nature,” etc. Notes Jane Jacobs, the parts of cities (including their inhabitants) remain heavily indebted to each other. “The look of things and the way they work are inextricably bound together, and in no place more so than cities” (14). Jacobs would continue that the “seeming disorder of cities” was more aligned with an “intricate social and economic order” (15).

To Jacobs, the most basic element of a city was the perception of safety on its arteries of sidewalk and street. Without such perception, which inevitably invoke a sense of the “hobgoblins” of the mind, the city could not exist as any thing beyond a sick organism (30). People, the constituent parts of the city, needed the ability to move and interact in order for the city to thrive. What if the city were viewed through emergence—as a single system born of all these interactive parts? And could the sites of interaction be explored materially as well as conceptually? As Kim began to dissect the city by extensively examining the urban ruins overlooked in daily New York life, she realized something was missing. The spaces alone “wasn’t enough” for Kim. They needed to involve a human. At first, the most “expedient means” of interjecting a human form was to model herself. And she decided not to clothe herself in order to protect the human figure from “cultural” queues. Her nakedness, she felt, also contributed to a focus on the living body’s presence in “derelict” spaces. In moving towards dereliction, the spaces were becoming “reclaimed” by nature. “In a way, I wanted the human figure in the picture to become a part of that nature,” Kim asserted.
Fig. 3.5: Screen Shot of “Bennett School for Girls” by Miru Kim

“As I stood on the stage of the [Bennett School] auditorium, I remembered what a harrowing experience it was to be on stage for the first time. As the sounds from my cello resonated throughout the school auditorium, I felt my limbs go numb, wishing that the seats were empty” (Miru Kim). The aura of dereliction, to Kim, encompasses both a history and an active engagement of natural motions within the space. To her, it cannot be reproduced. “You’re actually feeling the hand laid bricks,” she observes of being in a ruin. Those brinks have been felt by others, and were laid at a particular point in history. Reproduction cannot replicate their smell, or feel (as but two examples of many).
Kim observes:

Detroit was once one of the wealthiest cities in the world with the rise of the American auto industry in the early 1900s. Now, the population of the city is reduced to about half of what it was in 1950. The desolation and poverty are plainly visible. Every direction I turned, I saw an abandoned building from the Gilded Age. The streets conjured up what I imagined New York’s SoHo or TriBeCa to have looked like in the seventies.
During one photographic session, Kim encountered a homeless man and realized she was intruding in his space. After explanation, he seemed unbothered by her work. Later, he offered her his shirt to clean her feet from the grime accumulated in the tunnels and escorted her from the area. It occurred to her then that these spaces, beyond falling into a new repair often associated as decrepit (but more accurately thought of as a recovery of motion in the form of natural reclamation), were being repurposed as shelters for the marginalized members of society. In her statement of the scene—Freedom Tunnel—she notes the “implicit meaning of its name” as “freedom to live beyond surveillance.” To go underground, in Kim’s treatment of the space, is to borrow deeply beneath the flesh. The ruin becomes a hidden space, a spleen, which while far from view serves a role no less vital than the eyes, face, or other identifying characteristics of a body.

Kim, in her projects, captures emergence: points where a confluence of factors make new symbolic possibilities possible. In essence, she invokes and brings Jacobs’ argument to new life in the co-implicated spaces of her person and spaces in decay. The living body, ever in motion, responds to the spaces it inhabits—and, without clothing, the body’s vulnerability and universal identification comes into sharper relief. In spaces usually overlooked or nonchalantly termed “ruins,” dereliction (better defined as the passage of time) can be seen in new lights that showcase their relationship to broader society contexts. Moreso, a naked body in a derelict space highlights change in unforeseen ways. She as human being emerges within the context of an emergent space,
which in turn becomes the city. The mind, the body, and the space interact and develop new orders dynamically and continuously.

In her work *The Pig That Therefore I Am*, Kim turns her attention to flesh more specifically. Here interest in the flesh comes from its realization of sensation, which operates concurrently with memory to generate perception. However, Kim’s treatment of the flesh complicates its theoretical role:

All senses mingle on the skin, the largest organ of the human body. Not only is it an envelope, a container keeping the body intact and safe, it is also a membrane that allows exchange between the inside and the outside of the body. Through millions of pores, temperature is regulated, impurities are secreted, and vapors are absorbed. . . . The skin is also a defining medium for the internal consciousness of the body.

In part, her turn to considering the skin as a site of consciousness is indebted to the philosophy of Michel Serres in his work *Five Senses: A Philosophy of Mingled Bodies*. To Serres, the present scientific age has marginalized the senses. In contrast, Serres argues that the perceptive apparatuses inherent to sensation offer a richness for epistemology that needs to be reclaimed—alongside a need for rethinking the sites of memory. “Historicized skin carries and displays a particular history. It is visible: wear and tear, scars from wounds, calluses, wrinkles and furrows of former hopes, blotches, pimples eczema, psoriasis, birth-marks. Memory is inscribed there, why look elsewhere for it?” (24). The skin, in Kim’s work, exhibits the physical wounds of the past. It also serves as the intermediary of inside to outside.
Her choice of pigs is therefore significant for two reasons: the flesh of pigs and humans closely resemble each other. And the space of pigs—the pens—emerge both of design, and of interaction (between pigs, from the primordial slop in which they dwell, feed, and excrete, with the constructed materials of the planner, etc.). Kim’s art examines the processes of proximate realm of interaction, and distributes memory across the body and the space.

Fig. 3.7 Screen Shot of “NY 3” by Miru Kim

Distribution and interaction gain significance beyond Kim’s thinking about the body in space, and come into sharper relief as manifestations of emergence. Under such conditions, phantasy’s assimilative posture towards perception and memory informs the ways in which symbols come to be, and thus becomes a fitting simulation for emergence. At some stage, an originary semblance gains associative value with some related item. Over time, as memories grow into engagements with other perceptions, the network of memory expands and moves into the realm of the symbolic. In parallel, Burke in his theorizing symbolic action observes that the rhetorical agent moves away from the realm
of mere matter (but does not depart it). And Edward Wilson offers a similar logic between culture and genetics. For the sake of demystification, it bears noting that motion persists beyond the realm of symbolic action, and, likewise, symbolic action may influence other symbolic actions. Memory permits an engagement with emergence of a particular sort more broadly.

Burke explains “the vast symbolic realm of tribal sociality, or orientation, as shaped by the influences that you encounter by reason of your being a symbol-using animal, whose ‘reality,’ at every stage, is determined by such terms” (817). Burke’s scheme of motion/action employs emergence repetitively: first to enter the realm of the symbolic, and second to account for actions in symbolic domains. In both times of emergence, memory’s presence persists. Memory becomes a basis from which the logics of emergence construct the symbolic. And once symbolic, emergence accounts for change and perhaps even consciousness. For Burke, the realm of motion becomes impenetrable except by, in Andy Clark and David Chalmer’s terms, the extensions of the mind in which the body ceases to be a boundary to thought. While not to be confused with un- or dis-embodied, the extended mind eliminates the binary of external/internal memory.

From a basis of cities, bodies, and minds an emergentist lens may articulate that the former exists beyond the latter, irreducible to it. Conversely the extended mind hypothesis challenges the notion that mental processes are fully housed within the body. The mental and conceptual actions termed mind exist within the actions within a given space. The mind itself is an emergent construct, of and not merely in the city. Jacobs’
treatment of the city certainly nods in the direction of the mind as both originary unit and existing within the sidewalks of the urban spaces. She notes a call for relationality and “togetherness” as indicators of connections (62). Present in the works of Edward Hutchins, Andy Clark, and David Chalmers, Clark suggests that proponents of the extended mind argue that “the material vehicles of cognition can be spread out across brain, body and certain aspects of the physical environment itself” (1). “In other words, for the purposes of identifying the material vehicles of cognitive processes,” Clark explains, “we should (normatively speaking) ignore the old metabolic boundaries of skin and skull, and attend to the computational and functional organization of the problem solving whole” (2). Clark asserts a mnemonic basis to this relationship of affect and emotion, noting that “biological brains, I want to say, are by nature open-ended controllers.”

In this light, a resolution of the paradox of perception brought forth by reclaiming phantasy is that the external / internal binary ceases to be viable. The external—or to be more precise, the experience and meaning of it—comes from the relationality of the trailing memory-image to the surrounding environment. Consciousness of the city, or for that matter any surrounding area, is an emergent system always reconstituting itself. Fueled by the entelechial unfolding of identity, its mindfulness remains in a perpetual state of becoming—only, however, insofar as the embodied memory of the individual reaches into the space and adapts.
CHAPTER 4

COMPLEXITIES OF THE EVERYDAY

Earth is physis, the word designating both the power of emergence that is at once the process of being rooted in native soil. . . . Here, in the thick of [Heidegger’s purpose ‘to think what the Greeks have thought in an even more Greek manner’], the idea of earth provides the overall ambiance, the pattern through which this connection to the pre-Socratic mentality might be accomplished.

—Bernard Alan Miller, Rhetoric’s Earthly Realm: Heidegger, Sophistry, and the Gorgian Kairos

Help. I (a manifestation of every writer) need a word here. What is the word? I take an image from my mind, and describe it here: cat. No, not a cat, an animal. . . feral . . . what is it? I highlight “cat,” and enter the thesaurus function of my word processing software. I jot notes on a sheet of paper in an attempt to brainstorm. I ask a colleague—what is that thing, you know, it is like a cat but not a cat. What’s that word? Perhaps one of these sources can help: the mental imagery of my own recollection, the collective of born of my colleague and I, or perhaps a digital device’s stored data. Figure 4.1 offers a similar confession—the opening section as presented in version 1.1 of Mackenzie Wark’s GAM3R 7H30RY did not arrive willingly. With the words “you would not believe how many times I rewrote this opening section. . .” Wark seeds a conversation. There may remain, Wark notes “from experience,” some “dumb-ass mistakes still here” (and perhaps here). Almost three months later, “Steve” asks a question: has Wark read Richard Powers’ book? Wark replies with a question: which of Powers’s works should be brought to bear?
It appears I am in good company with Wark; we both share authorial frustrations. But beyond this analogous relationship, these two touch points bear a number of significant differences. Unlike Wark’s work, my text (the one being currently read) cannot *host* a conversation that either extends or reconfigures itself. It is not possible, without another form of intervention or place for the proverbial meeting of minds, for readers to communicate amongst each other or with the author. I would need other spaces to ask my readers for their take on what word(s) correspond to something like a cat. This sentence, paragraph, and page remains mired in an approach to production and consumption that represents more how texts are perceived than the ways in which new digital technologies can reconstitute their form. Wark’s draft, with support from the Institute for the Future of the Book, became an interactive web text that questioned the
traditional textual mold by offering readers an invitation to become actively engaged within a generative conversation. A similar generative conversation for my text would rely on emails, conversations in various domains, and other tools for discussion. So while Wark responds to two questions: “can we explore games as allegories for the world we live in” and “can there be a critical theory of games” (“The Original 1.1 Welcome”), his web text offers another intervention related to the relationship of reader to writer. Wark invites readers to approach his web text “as a way to think [about the research questions],” and then attempts to “facilitate discussion around it.” The readers could become something more than readers in a work that offers a glance into a different relationship of place, production, and reception. My text cannot offer similar functionality.

Wark’s text and my writing allegory illustrate cases in which the dynamics of exteriority entwine with the projective and generative nature of memory, which this chapter entitles the everyday. Although I have offered only two illustrations, examples abound beyond reading participatory texts, engaging in conversation, or opening a dictionary. The everyday, which this chapter expands using theories of ambience and interface, speaks to a post-emergent construct: those technologies, rituals, places, and actions that congeal from regular usage to become an irreducible whole. Beyond situating the everyday as an extension of memory and enriching it through ambience and interface, the work of this chapter comes to considering it as manifested in the most ordinary sense commemorative sense: the cemetery.
Technology and Memory: Introducing The Everyday

The ordinary practitioners of the city live ‘down below,’ below the thresholds at which visibility begins. They walk – an elementary form of this experience of the city; they are walkers, Wandersmänner, whose bodies follow the thickses and thins of an urban ‘text’ they write without being able to read it . . . The networks of these moving, intersecting writings compose a manifold story that has neither author nor spectator, shaped out of fragments of trajectories and alternations of spaces: in relation to representations, it remains daily and indefinitely other.

—Michel De Certeau, The Practice of Everyday Life

The most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it.

—Mark Weiser “The Computer for the 21st Century”

While prior chapters offered a generative understanding of memory, this chapter now introduces how various memory systems interact with each other to generate the everyday. Jeff Rice recalls visiting a digitized Detroit in which he accesses more than one network to guide his path. His GPS device helps him navigate the city with its functional memory and cartographic display, but it functions concurrently with his nostalgic recognitions of the urban environment. Detroit to his experience exists only across, and in, these networks.

As Rice notes, networks exist in two forms: as physical networked space of the sort often enriched with technology and as the conceptual abstraction of things being
interconnected and co-affective. The everyday approximates a web of relationality, a point of intersections between networks, which points towards both conceptual and material manifestations in a state of dynamic adaption. There is, of course, a tendency toward restricting the domain of everyday to one or the other understanding of networks. However, these definitions conspire and intersect in certain nodes (which could as easily be places, shared acquaintances, or social medias). Such co-implications trouble reductionist moves to one or the other. When new wholes result from parts being brought into contact at nodes, the terminology could perhaps be best understood as engaging networks in plurality. Within any given node multiple networks converge with the possibility of becoming a singularity.

The everyday intersects with and can be understood through memory in two significant ways. In Wark’s webtext, for illustration, guests can join or view the conversation at any time. In other words, his e-text becomes a hub that both houses the discussion and connects the various readers through one mediated space. As a type of archive, Wark’s work serves as a focus for multiple divergent lines of individual and collective memories. A dual understanding of the archive as both a process of retention by an archivist and the place that, in Jacques Derrida’s treatment, commands recall of a particular sort can prove useful. As another application of memory, both illustrations rely on projections of individual memory. For the case of I as writer, I must find a missing word by expanding my working memory to include a variety of external devices. The memory system associated with a particular facet of the everyday becomes distributed, in which constituent parts (whether the author, media storage, or a collective) each share a
commonality. Wendy Hui Kyong Chun connects memory to software more explicitly through a similar connection, and describing an inherently vexing set of political problems that then result. In one sense the text itself is “stored” electronically for visitation by future readers on technologies that include their own memory systems, and at another the readers extend and distribute memory. These senses of memory offer a sense of the everyday as a site of expression for memory.

Memory exists in each of the aforementioned forms—collective, individual, technological—as well as in another perspective that extends beyond and emerges from them, as prior chapters have theorized. Wark’s conversation is predicated on the relative hospitality of the text as well as the systems of memory connected through it and can thus be read as emblematic of the forms of space that nurture emergence. However, the problematics of do not remain confined to Wark’s text. Participatory texts suggest another important function of memory as related to the everyday: usage of and motion in all forms of space affect the space itself, naturally, but in turn that reconfigured space levies new demands on memory. Such recursion between projections of memory and affects of space respond most directly to the problematics of what has been called the everyday.

Participatory texts like Wark’s or the various outlets creators use to employ their memories in their creative processes, however, do more than house conversation. They offer a lens into the potential for recursive reconfiguration. More colloquially, the creation of interactions involves a type of feedback loop. Rather than only read or analyze objects or contexts, subjects explicitly affect objects and environments and then
become affected by the reframed surroundings. A subject’s presence influences the thing and the context (and vice versa). Erving Goffman’s now seminal study of the everyday demonstrates the importance of an individual in social interactions as the foundational basis of the everyday. Similarly, a participatory text invites response both through its interface and the conduct of other readers. The various supporters who help me identify the cat-like thing similarly intervene in a network of relationality that extends from interiority into exteriority.

Memory extends into the everyday through manifestations of affectual logic, which can be enriched by other rhetorical traditions but not reduced to them. I may need help finding a word, but the environmental queues my phantastic memory (again as an every-author) construct are unmistakably as present as the objects used along the way. As the everyday can be defined as an understanding of places (virtual, physical, and/or augmented) in which independent memory systems intersect, memory becomes a route through which the everyday can be understood. However, it is a non-exclusive and non-totalizing approach. The everyday can be understood using other forms of rhetoric. For instance, there are matters of delivery present in Wark’s text as well as in my authorial trials but delivery alone, as one of several alternative rhetorics to memory for the purposes of understanding the everyday, cannot alone account for the animation of Wark’s text or the author seeking help with a word choice. Rather, another type of memory that cannot be reduced to its constituent parts blossoms before the gaze of the visitors to Wark’s web text (as they themselves become party to it).
The everyday, an already complicated term as the observations presented thus far signify, becomes increasingly troubled by ubiquitous computing (referred to as pervasive for the remainder of the chapter). Pervasion interjects electronic media that, drawing from the extended mind hypothesis, challenges the boundaries of internalization and externalization. Thus the paradox to be confronted spatially everyday exists more broadly within a nexus of daily rituals and technologies. In an everyday pierced and in part defined by pervasive computing, conversations and ideas (like the respondents to Wark) rapidly proliferate. As Mark Weiser projected, the technologies loosely affiliated under the term computing have become sufficiently pervasive that they vanish into the tapestry of the everyday. Rice experiences this first hand as he understands Detroit across purely digital, purely material, and hybrid perspectives. In much the same way it can prove difficult to consider the affordance of a historical site without considering the contemporary contexts and lens through which the site is translated, it becomes difficult to visit the everyday without thinking of the various tools present to help navigate it. The question of the everyday is a question to be approached anew under the auspices of prolific and pervasive computing.

Externalizations, including physical spaces or mediated traces, often follow senses of memory defined merely as forms of inert repositories. The everyday typically understands memory in a much more fluid sense, more aligned with the generative form explored in this project. Beyond these repositories, memory may be viewed through a collectivist lens via sites that may be commemorative or archival in nature. Such places present materials that can be extracted and extended into a narrative form. In these cases,
the I of the every-writer unmistakably leaves her or his proverbial fingerprints on the subsequent composition. So yet again, this second sense of stored memory fails in the everyday—the everyday relies on a more dynamic and projected sense of memory.

Even if overlooking the critiques of the previous chapters (and these two observations within the everyday), storage metaphors served as the basis of segmenting memory from the processes of perception in early designs of computing technology. Cybernetic and computational designs delineated processing as separate from, but related to and dependent on, storage. A prevailing and limited sense of memory supported defined computing as processing, and reinforced the existing paradigm. To apply computing terminology, random access memory relates directly to the operational protocols of software. The protocols ultimately present and reproduce in ways to be consumed by a subject. By viewing these as separate—the procedural as distinct from storage—required inventing an alternative understanding (Random Access) of memory. Quite literally, new forms of computing memory had to be invented to work within and promote an existing theoretical lens that neglected phantastical perspectives.

To further complicate the difficulty associated with separating protocol from memory, there remains the substantial and as-yet undiscussed role played by independent external memory systems. These would be the types of memory systems that are tertiary to the everyday. Assuredly computers, especially more recently designed ones, operate independently in some ways. However, these various devices that perform computation work within the network of operations of which the human user is a big part. Thinking more specifically of mobility in which the devices are constructed with portability in
mind and through various approaches to input such as global positioning, the computer becomes merely yet another extension of the mind. Working with a device, in ecology of usage, can be viewed as performances of cognition as well as executions of embodied protocol. Data inevitably collides with individual memories when accessed, and those protocols of collision are as much a part of the study of memory as are the senses of past subjected to memorization.

Wark’s text, for instance, represents an interface between the digital memories of other users and the projected and generative conduct of any given reader’s phantastic design. Yet the same principles apply when the scarred remnants of a physical monument and the stories of those scars interact with the perception of the visitor to a park. Regardless of materiality (digital, physical, ephemeral, etc.), the emergence described in the third chapter presupposes interactivity that results in a new whole. Interactivity happens in zones of everyday connectivity using nodes, which also cast an important gaze on the contexts of use. The everyday can thus be introduced as a function of memory and pervasive technology (which has, as was noted, influential types of memory not accessed by the user).

**On Everyday Living**

Rhythms. Rhythms. They reveal and hide, being much more varied than in music or the so-called civil code of successions, relatively simple texts in relation to the city. Rhythms: music of the City, a picture which listens to itself, image in the present of a discontinuous wall of the façade . . . but beside the other windows, it too is also within a rhythm which escapes it . . .
With media pervasion, select traces may be stored (archived) or reproduced and distributed for subsequent ease of access using a logic Collin Gifford Brooke calls “persistence.” And as oft-called new media technologies encompass ephemeral (in the case of data) or biological (vectored/expressed genetically) materials, the frontiers of everyday living expand. The potential for the rhythms of daily life to directly relate to access, buffering, and reloading as they do to walking, breathing, and eating becomes a theoretical exigency. What is it to compute pervasively within a context of living, and life?

Network access stems from memory in several noteworthy ways, such as in mapping (understanding visually) place. To map is to apply a phantastical logic to the dynamics of space. With a map, it becomes possible to ignore that which is off the proverbial beaten path. The neglected spaces of decay Miru Kim explores, as the previous chapter describes, exist beyond the fringe of the map—to visit them is to work beyond or outside the constructions of space a map provides. When approached as solely a matter of placing ideas or experiences in easily retrievable ways to be retrieved at a moment’s notice, rhetoric describes memory as rote storage—what Brooke calls not persistence but “present/absent.” In a “present/absence” perspective, the rhetorical actions surrounding memory become either remembering (retrieving) or forgetting (deleting). Understandably, placement paradigmatically functions to focus on protocols to invent from memory or mechanisms by which memory can be built, but otherwise offers little consideration of memory as a vital rhetorical theory. However, such a dismissive
treatment is a far cry from the “guardian” role assumed in the *Rhetorica ad Herennium* in which memory not only stores but guides orientations of the environment. Brooke’s persistence, in which memory remains salient in the space between absent and present, represents a consumptive move of daily life: the digital media has been folded into the place such that its as much a part as the walls around a room.

It may be tempting to remain in a world of pure symbolic gesture in which a spirit of cultural epistemology affords a mechanism where material realities remain consequences of (rather than initiators of) action. When thinking of this specific problem, Michel De Certeau suggests:

> Stories about places are makeshift things. They connect with the world’s debris. Even if the literary form and actantial schema of ‘superstitions’ correspond to stable models whose structures and combinations have often been analyzed over the past thirty years, the materials (all the rhetorical of their ‘manifestation’) are furnished by the leftovers from nominations, taxonomies, heroic, or comic predicates, etc., that is, by fragments of scatter semantic places. (107)

De Certeau sees the everyday as a sufficiently pliable concept to capture fragmentations in a larger whole. The buildings along today’s or yesterday’s commute assuredly possess stories or histories of their own. They may function as nodes that play a vital role (as landmarks) or be passed without much notice. Along similar veins, evolutionary scientist Edward O. Wilson notes a propensity for comfort within certain geographic topologies born of perceptions of comfort. Perceptions of comfort or security are merely phantastic echoes—the perceived situation is simply one that fits neatly within a prevailing narrative
of the past. Wilson describes images of the Serengeti from which our species most likely emerged as intuitively comfortable to a majority of viewers. For further demonstration, Gregory Bateson senses that the mind engages the spaces it inhabits in material ways. Bateson positions the physical world of context (which could as easily be called a scene or setting) as inextricably bound to the processes of engaging that world. From Bateson, it is not a far cry to situate physical spaces as reducible to lived experience. In arguing for a primacy of perception, not unlike the notions of attenuation later discussed in rhetorical circles, Maurice Merleau-Ponty returns the notions of absolute or rationality to the realm of experience. By primacy of perception, he notes:

that the experience of perception is our presence at the moment when things, truths, values are constituted for us; that perception is nascent logos; that it teaches us, outside all dogmatism, the true conditions of objectivity itself; that it summons us to the tasks of knowledge and action. It is not a question of reducing human knowledge to sensation, but of assisting at the birth of this knowledge, to make it as sensible as the sensible, to recover the conscious of rationality. (25)

Everyday living dissolves the boundaries of objects, spaces, and subjects under the rubric of perception. Perception, especially as informed by a generative theory of memory rhetoric, acknowledges the realm of motion concurrently beyond and within the symbolic.

Invoking a primacy of perception, however, calls for and forth an organizing principle. Maps, limiting they may be, support the negotiation of space as much as its navigation. Images serve as grams to the phantastical tradition of memory and also
compress (and contort) prior experiences. The elements within the scope of the subject’s perception, Merleau-Ponty note, are understandable as “references to a whole which can be grasped, in principle, only though certain of its parts or aspects” (16). This collapses the subject/environment (or, to apply a more Burkean frame, actor-scene ratio) into a reified state lacking a central organizing principle.

Yet within Bateson’s treatment of physical space and in Wilson’s treatment of representations of comfortable spaces from an evolutionary point of view, everyday living acknowledges material and symbol dimensions concurrently. Perception relies on sensation and of affect from objects and places, yet a storage metaphor of memory rhetoric neglects to address these elements in relationality. Memory drawn phantastically affords a toolkit from which the intersection of lived experience, material and physical elements of place, and technology intersect experiential in the everyday.

**Heterotopics**

The space in which we live, which draws us out of ourselves, in which the erosion of our lives, our time, and our history occurs, the space that claws and gnaws at us, is also, in itself, a heterogeneous space. In other words, we do not live in a kind of void, inside of which we could place individuals and things. We do not live inside a void that could be colored with diverse shads of light, w live inside a set of relations that delineates sites which are irreducible to one another and absolutely not superimposable on one another

—Michel Foucault “Of Other Spaces, Heterotopias”
Near my home in Pendleton South Carolina, there is a local legend surrounding an old grave marker. The weather-beaten stone marks the earthly remains of an evil and vengeful spirit. Murdered by her brothers for turning to prostitution, or so the tale goes, the ghost can be commanded to do the bidding of any visitors for the low price of the correct incantations and ritualistic offerings. Local legend suggests that the colored stones scattered nearby remain from efforts to channel her spirit in various cult actions, and that her blackened headstone retains marks from repeated lightening strikes. Many fantastical stories in folklore begin or end in the cemetery for understandable reasons: they are the most everyday of spaces, second perhaps only to the sidewalks with which Jane Jacobs was concerned. Cemeteries serve commemorative roles – both for those who have died, and for the collectives employing cultural practices to sanction certain practices.

Foucault remains interested in describing sites by their “set of relations,” with special attention to the “certain ones” that have the curious property of being in relations that “suspect, neutralize, or invert the set of relations.” These spaces of contraction, he notes, function “something like counter-sites” that are “outside of all places.” To Foucault, such sites are not metaphorical or to be confused with Marc Augé’s understanding of non-places. Whereas Augé theorizes an absence of relationality, Foucault forecasts an inversion in which relationality turns relationality back upon itself. Foucault’s understanding of such places stems from “real sites” that “do exist and are formed in the very founding of society. . .” The term he uses to refer to them, the heterotopia, works in opposition to the idealized utopia. He defines heterotopology as “a sort of simultaneously mythic and real contestation of the space in which we live.” Such
turnings are akin to the recursion gestured towards previously in this chapter within memory as it extends into the broader everyday environment. Topia, or topics, are of course longstanding themes within rhetorical inquiry. Yet the turn towards and against the utopian offers a glance at the everyday to further consider.

Rather than addressing the matter through familiarity alone, heterotopology offers a series of principles by which normalcy ceases to lend itself explicitly to self-replication. The vocabulary of heterotopology remains unmistakably steeped in memory, as much of Foucault’s invention of the concept relies on the problematics of time and temporality. He describes opposites of the heterotopias either linked to the accumulation or flow of time. As opposites, the museum or archive as a heterotopia “are linked” to the latter. Sites like “the festival” consider the converse, a “flowing” and transitory understanding. To explain the heterotopia “par excellence,” which consists of both understandings to some degree and a reserve of imagination, Foucault references a ship. Without ships, Foucault notes, “dreams dry up, espionage takes the place of adventure, and the police take the place of pirates.”

Navigating the everyday can, the heterotopic gaze reminds, benefit from productive tensions within normalcy. Rather than look to the external or abnormal things which can similarly disrupt, the regularly encountered and routine everyday can offer an alluring mechanism for the construction of possibility. Maps guide our view back to the distinction between agents and ecologies, restricting our mechanisms of using typical spaces atypically. The map and the everyday are not, for that simple reason, productively equated. To elaborate, Elizabethada Wright situates cemeteries as simultaneously “very
usual and unusual memory place[s].” In this question of heterotopology and the everyday, cemeteries occupy a space somewhere between material sites and creation of practices that perform inversions (51). Wright observes, harkening back to Foucault, a paradoxical form of referent: the mirror. A mirrored reflection offers sufficient similarity for recognizability, but enough strangeness to approach counter-memory. And perhaps no place better recycles the gaze than the everyday cemetery. Foucault describes the cemetery as “a place unlike ordinary cultures” in which “each individual, each family has relatives.” The cemetery can become thus both universalizing and connective, however disquieting and routine. Wright comments, “the cemetery’s memory is like the mirror and its reflection: real because of the physicality of the grave yet unreal and easy to distort. Finally as a heterotopia, the cemetery is connected to all spaces and places, allowing all in as it also juxtaposes all” (55). Cemeteries and sites of mourning in general may be designed with public memory in mind or, in the words of John Bodnar, “public memory emerges from the intersection of official and vernacular cultural expressions” (75). As Bodnar reminds, memory is not at issue as much as the disruptions of idealized and normal spaces.

As a way of entering the everyday, Wright attributes significance also to the cemetery’s everywhere-ness (69). Their ordinary commemoration falls rapidly into normalcy and expectancy, but also renders the everyday-ness clearly visible. Wright sees in the ordinariness of cemeteries a chance to makes a strange gesture: she points to cemeteries as rhetorical spaces that affect those still living. The everyday derives from their basic equations of affect, which can be matters of routine and normalcy—domains
of memory. The cemetery attracts not those looking to remember but those wishing to construct recollections. They as living bodies inhabit and move in a material space attenuated to the presence of their mortality. The space is not simply “there,” it manifests the tendency to leverage the present to facilitate a reconstitution of the past of the past.

As Wright treats them, although not in the language now invoked, cemeteries express everyday logics—and as such, the corresponding heterotypical inferences bear explanation. Wright is not alone in sensing the influence of memory as a persistent rhetoric in normal places. Marianne Hirsch’s efforts to theorize “post-memory” rely on similar understandings. Why is it possible, Hirsch would ask, that a memory from a previous generation could obtain salience in the present? While cultural stories and public memory sites can maintain collective memories, what would lead particularly acute memories to be accepted as individual memories without personal experience? As a genesis of Hirsch’s theory, the generation whose lineage included Holocaust survivors would often assimilate painful and traumatic memories that predate their birth. It would seem that objects, the relics and representations of their parent’s ordeal, and the stories they experienced develop such enough potency to become personal (individual memories). It may be argued, at some length, that the notion of post-memory owes no small debt to Walter Benjamin’s theory of aura, in which the questions of affect and semblance become entangled and enmeshed.

However, rather than theorize the issues of proximity associated with memory and material reproductions, the question of the everyday moves towards affect. When approached heterotopically, affect resides in the contradictory affordances of highly usual
spaces rather than in subjects in space, the relationship of subjects to other subjects, or media forms present in any given space. By turning the interconnected nature of all of the above in any given moment, the everyday proliferates more broadly in spaces in which the action (symbolic) and motion (non-symbolic) discussed in prior chapters coalesce. As rhetoric adopts various material lenses through which to ascertain the consequences of such interactions and interfaces, critical new vocabularies and symbolic actions are likely to result.

**Ambient Interjections: An Interrogation of Arlington National Cemetery**

Arlington National Cemetery has developed ANC Explorer, an application that is available across common web browsers and on mobile smart phones. This app enables veterans, family members and the public to explore Arlington's rich history. This first version of ANC Explorer allows users to locate gravesites events, or other points of interest; generate front and back photos of a headstone or monument; and receive directions to those locations.

— “Visitor Information: ANC Explorer” (From the Official Website of Arlington National Cemetery)
The writer I (as employed at the onset of this chapter) once navigated Arlington National Cemetery. Arlington, as a reprise and symmetrical illustration to the Detroit discussed by Jeff Rice, operates across several domains of experience. It can be understood as the physical place of commemoration as well as an electronic intervention of a newly released navigation application. The digital mapping of new forms of cartography directly connects with the collective memories it sustains. However, it no longer can be productively viewed as exclusively of any of these sites. An alternative approach would be to see it as an illustration of everyday-ness as informed through ambience.

Arlington is, of course, a unique place—its size, scope, and significance to a national audience grants it more extraordinary than routine. Yet the everyday represents
less a matter of normalcy than the affects resulting from being situated in a node of
relationality. And as far as nodes go, perhaps few approach Arlington’s stature. A way to
tell its history would be, for instance, to look at its conversion during the American Civil
War from private residence to cemetery. Alternatively, the Tomb of the Unknown Soldier
permits reading it as a space for responding to anxieties and traumas of unnamable loss.

Yet it could also be told as a personal narrative in the lived experience of its many
annual visitors. I recall being lost there once amongst the countless rows of headstones. A
storm moved in quickly, bringing rain by the torrent amid ground shaking thunder. Like
many other people caught in the open ground, the Tomb of the Unknown Soldier became
a shelter from the weather. Shivering, huddled, and hoping for a break in the weather, we
awaited an opportunity to leave. The elements conspired to interject hospitality into the
space. I vividly remember the face of the guard at the door. Unbothered by the weather,
the water from the rain billowed off his bill of his cap. To others, it may be a place
associated with personal loss. The stones, especially the newer ones, are connected with
the presently living in intimate ways. That day, when the weather finally did clear, I
passed the casket of a soldier on its way to burial. Drawn by horses, the casket and its
enclosed remains headed for another addition to the commemorative space: a grave.
Perhaps that too could be the way to tell of Arlington’s everyday-ness: the individual
stories of each person there—living, or not.

Arlington as transformed across lived memory, the application intended to
intervene in the experience of visiting it, and as an articulation of the cemetery, invites an
ambient logic. Before a performance of “Waterwalk” on the TV show I’ve Got a Secret,
John Cage defined music as the willful production of sound. Our feet, passing cars, and the hum of the computer can form musical rhythms and compositions by his broad definition. Cage’s approach to music offers a number of elaborations regarding sound and space of concern to the everyday. In his demonstration, by design, many of his instruments were ordinary devices. Dripping water from an ordinary kitchen sink and a whirling blender, for instance, added their unique sounds to the symphony. Cage, to express their musicality, used a stopwatch to account for the matters of time inherent to any rhythm. The clock governed his musical gestures and aided in the emergence of music from individual sounds. There’s a unique sound to Arlington as well, which at times relies on the motion of wind and trees.

The ear would recognize music based, Cage surmised, on the “precision” with when each instrument was added. To Cage, the piece required careful control of time, which in turn could become musical to the listeners. Endeavoring to approach chronological time consistently yields, however, a spatial challenge. Navigating the space to meet the rigors of a particular schedule required frequent adjustments to his motion. He would at times stand over an instrument awaiting the appropriate entry point for its addition to the music. At times walking from “instrument” to “instrument” and at other times frantically scurrying, his concern with time was evident in the pace by which he moved across the stage to create various sounds. Motion and space remained integrally connected to the questions of time Cage attempted to navigate.

Cage’s piece invokes something of a boundary question surrounding motion and time in space, as controlling for one applies pressure to adjust in the other two domains.
All three are relative, of course, yet also cannot fall squarely into a subjective category. The alluring possibility raised in the interjection of a fourth term, which includes all three domains as co-implicated, necessitates further consideration. Thomas Rickert, in *Ambient Rhetoric: The Attunements of Rhetorical Being*, employs “ambient” to discuss rhetorical conditions of dissolving boundaries between agency and scene, and subject and object. To a text, for example, ambience references an approach to rhetoric in which memory serves a vibrant function. For present purposes, ambience also informs a contemporary understanding of the everyday.

Don Norman, although contrarian in the sense of adopting mental models more broadly to sort and sift an otherwise cluttered world, can inform turns towards affect (moving beyond text to interface-as-space). Such turns maintain a constructive nature. Any given context in Norman’s articulation similarly consists of a variety of networks, resources, cultural perspectives, etc. Rejecting a division of user, object, and setting more closely replicates the conditions of complexity. To invoke a language expanded in the next section, such motions exhibit ambience. They remain objects in an environment (as in the books scattered around my computer as I or Wark struggled to find the right word) of which the writers or readers are a part, and the texts also maintain literary and ludic richness across contexts. Unmistakably, however, the ambient perspective invited in the next section contrasts almost categorically with Norman’s conceptual mapping. It advances technologies and texts beyond stationary artifacts to instead gaining agency inseparably as parts of the broader conditions in which they are placed. And from this comes a brush with affect in sharper relief. Affect represents a view on the connectivities
of artifacts, settings, and subjects that resists neat partitioning. Thus, ambience becomes a turn in concept by which interfaces connect various systems (subjective, objective, cultural) to become emergent constructs. These can include other users, of computer memory, and of the symbolic remnants of the original authorial efforts by the composer of the text. Ambience, especially when read as a continuation of interface theory, resists linear binaries of division in everyday contexts. The either/or of individual subject or collective or technological domains fail to account for the organic growth exhibited in such domains. Memory exists within each existing system, of course, yet none (as argued in prior chapters) can account for an emergent state. Rather it could be better considered a state of co-implication, in which the subject’s phantastic memory performs within other networks of relationality (which then, in turn further extend the situated memory into new domains).

Rickert’s argument enmeshes place and sound with rhetoric. As Cage’s example demonstrates, motion and time necessarily follow. Dramatically, a turn to ambience turns from the simplicity that Rickert treats as the consequences of comedy—a singling out of particular situational or environmental attributes for persuasive purposes. It should be noted that some of the work of this dissertation, to interrogate memory’s revitalization using complexity, closely traces a rubric of ambience. Ambience offers a rhetoric of “enmeshment” of subjects, environments, and languages according to Rickert. Such networking across materialities and species of rhetorical inquiry extends but the everyday, and invokes memory whenever inhabiting a (any) place:
. . . an ambient age calls us to rethink much of our rhetorical theory and practice, indeed, calls us to understand rhetoric as ambient. Rhetoric can no longer remain centered on its theoretical commonplaces, such as rhetor/subject, audience, language, image, technique, situation, and the appeals accomplishing persuasive work. Rather, it must diffuse outward to include the material environment, things (including the technological), our own embodiment, and a complex understanding of ecological relationality as participating in rhetorical practices and their theorization. (3)

The paradigm Rickert introduces unhinges several rhetorical mainstays as exclusive domains of rhetoric. The “material and informational environment” begins to take an “active role” in “human development, dwelling, and culture” (3).

Such a broad and sweeping invitation to revisit rhetoric non-reductively benefits from an assimilation of four themes in Rickert’s work. There are, he notes, cognitive science, hermeneutic phenomenology, ambient music, and new materialisms (11). All of these threads begin to converge in any and every place, as is the case with the new approach to rhetoric he champions. So for these reasons, these threads become components of a larger whole—in part, the question of ambience can be approached through them. Yet the notion of ambience, as situated in this chapter, also represents an intersection of rhetorical theory within everyday-ness. It is a contested territory, in which Rickert offers a clear line of division. “By implication, rhetoric from an ambient perspective can no longer be situated solely in human subjective performance” (29). He continues, “place affects us—it is an occasion for the world’s revealing—and is not best
understood in terms of messaging” (31). Moving towards a centrality of affect as
underwriting ambience from the perspective of four themes offers a point of congruency
for co-implicating the everyday with ambience. And it also questions how to understand
those points of interconnectivity from which each theme becomes enmeshed with others.

Interfaces & The Everyday

Much can be learned about the nature of interactions in everyday spaces from
interface theory. For instance, the consequences of presence often confound the original
design intentions. As visitors invoke memory in their visitation experiences as a part of
their perceptual actions, they may bring something novel and beyond the original design
intentions. Wright works to collapse Michel Foucault’s definition of a heterotopian space
with Michel de Certeau’s definition of place in order to discuss how sites of mourning
can become inclusive rhetorical spaces for marginalized discourses. The smell of a place,
an olfactory physiological action, relies on the intersection of small particles with the
processes of the body to translate stimuli into smell. Particles of dust, chemical
elementals, and the cilia of the nose detect certain presences in the air. To De Certeau,
walking in a space resonates with “the believable, the memorable, and the primitive”
(105). These elements relate and develop signifying practices as the subject moves
through a space. They essentially offer a reminder, one Henri Bergson uses to mediate the
matters of time and memory: the material body is the genesis of spatial experience.
Perhaps our skin, our eyes, our noses bring to bear the original interfaces of recognition,
perception, and ecological post- or non-human agencies.
Sensation is the first interface, but not the only or last of its kind. Rather than address one or the others, this section endeavors to expand their theoretical rigor to unpackaging their connections to (and complications of) the everyday. In many respects, the work of Richard Bolt—who builds from a metaphor of meeting places to understand the interface—interjected a profound way for sensing the intersection of the everyday with interfacing, long before the advent of mobile or pervasive computing. The tenants of pervasive computing suggest the interfaces of technology are, themselves, sufficiently ubiquitous to align with experiencing the everyday. However, more broadly construed, interface references a zone of proximity that closely traces a turn present in much of thing theory, object orientation, and post-humanism’s efforts to assimilate rhetorical thoughts into various materialisms. The interface thus represents a site of conceptual expression for phantastic memory, a lynchpin for several contemporary rhetorics, and a core part of thinking (and experiencing) the everyday.

Wark’s text blurs a terminological line, as both a text and a living memory of responses. Yet the line that demarcates text and memory has itself has been blurred elsewhere. Mary Carruthers, in *The Book Of Memory*, asserts that the term *text* bears an etymological symmetry to weaving—as in, the various layers of language and reader intersect at (not in) textual engagements. To Carruthers, text itself is a nexus of different intersecting memory forms in language and the tangible book-artifact, which then engages the reader’s perceptions and memories through reading. It could be said, to apply Carruthers’s observation more generally, that “texts” gain significance only in the ecology of everyday interactions as a point of connectivity in which different forms of
memory converge. The term “text,” as Carruthers positions it in thinking memory, references a perspective that connects with “media” (or, more accurately, technologies of memory) more broadly. Further, text (to print) bears an affinity with a spatial understanding of the interface as Derek Van Ittersum suggests. Text possessed a woven and networked nature prior to the invention of mediated or networked media.

Interfaces, as existing both beyond (and before) textual frames, inform the activities of reading (interacting with or within texts) and bear a remarkable affinity with the anchor points (le lieux) of collective memory proposed by Pierre Nora. Nora famously observed that lieux exist in the absence of more authentic forms of memory. They are especially different in the sense that they are not merely points of consultation (traces): they are material zones within a larger networked memory system comprised of subjective, collective, and mediated parts from which new frameworks of memory can come into being. They can also reinforce the existing frameworks, or offer reaffirmations of existing ways of gesturing towards the past. To Nora, the primary lieux is archival—which itself possesses conceptual and metaphorical significance beyond the physical (historiographical) definition of the domain. Considering the archive as a point from which to theorize more broadly interface theory invokes a gesture towards ethos, because the archive consists both of the physical materials retained and the subjective memories (and methods) of the visiting historian.

In this treatment, interface extends beyond the limiting and limited sense of physical entry points. Instead, interface becomes metaphorical and conceptual for those spaces that, regardless of design intention, bring otherwise divergent systems into
synchronicity. From Carruthers, who sees in text a gesture towards memory in the form of a weaving structure, the leap towards the word “archive” is not far removed. Jacques Derrida recalls a dualistic nature, in which “archive” references a “principle” where things commence as well as a “there . . . from which order is given” (1). Assuming such a stance, whereby the text and archive assume a similar property of both physical thing / place as well as an entry point for structure, the logical of interfacing seemingly transcends the given media (as text or texts, in archive). To return to the matters of contextualization, whereas previous chapters engaged a historical and theoretical lens for these actions, this chapter concerns itself with the places of interactivity from these behaviors happen—it situates the interface conceptually as a space of proximity between otherwise independent memory systems, at which new systems emerge. It visits the questions of conjunctive experiences discussed by Anna Munster, but as expressions and vitalizations of rhetorical memory.

The interface is thus a routine and everyday species. Text and archive, whether separated as entities or explored for commonalities, exhibit interface logics as do driving a vehicle, walking on the sidewalk, or riding an elevator. The challenge becomes to better understand the interface as it finds manifestations across and beyond these articulations. However, the invocation of interface in the everyday does not represent a blind turn to collision as generative or of memory without interrogation. A proliferation of interfaces can be traced to hyper-connectivity theorized by Duncan Watts and Albert-Laszlo Barabasi. To Watts, interfaces arise so frequently that they are easily overlooked as a matter of routine. The node, or crux of these interfaces, Barabasi asserts, represents
places from which new orders emerge. The interface represents place of a particular sort: areas when multiplicities of memory become singularities. Naturally, the term interface itself harkens to a display of some technological sort. More generally, however, interface (like the networks to which they gesture) can more productively be viewed conceptual abstraction. Interfaces account for the façades, the entry points, and the pronaos: those thresholds into networked domains.

In what Wark experiences alongside “Steve” in their discussion of Richard Powers, text becomes a space in which new orders of thought generate. Reframing text (as but one technology of memory amidst many) then manifests a broader set of logics, which can then lend themselves to facilitating connections between memories in various forms. To read a text is to connect a reader’s framework of memory with the types of collective and material memory retained by and in the text, for instance. Yet similar logics are present in the conceptual space of connectivity writ large. Consider sitting on a park bench, when two walkers nearby begin speaking. In hearing their conversation, the onlooker conjoins his or her perspective with the physiological acts of hearing. The park becomes a space of meeting, in which several people (working through oral modes of communication) at a particular place and time engage each other in conversation. Interface thus gestures more broadly to other types of encounter that rely on cartographic applications of memory. And text becomes species of a wider genus: technologies with memory writ large, and spaces designed to facilitate interactions. Consequently, it is from interfaces that emergence transpires.
From Augmentation

Although interface in the sense used in this chapter more broadly invokes thresholds than exclusively sites of human-computer interface, the efforts to “augment” human intellect by way of interface design pioneered by, amongst others, Douglas Engelbart necessitate acknowledgement. Notes Engelbart in a summary report for the Director of Information Sciences of the Air Force Office of Scientific Research, “[human] population and gross product are increasing at a considerable rate, but the complexity of his problems grows still faster, and the urgency with which solutions must be found becomes steadily greater . . .” (1). In response, Engelbart develops a systematic framework for “improvements in performance.” Amongst the possible enactments of Engelbart’s conceptual framework, the computer seems particularly promising as a “clerk” able to complete requested actions with greater speed. Engelbart, however, sees the computer as extending beyond human frameworks for problem solving:

In such a future working relationship between human problem-solver and computer ‘clerk,’ the capability of the computer for executing mathematical processes would be used whenever it was needed. However, the computer has many other capabilities for manipulating and displaying information that can be of significant benefit to the human in non-mathematical processes of planning, organizing, studying, etc. Ever person who does his thinking with symbolized concepts (whether in the form of the English language, pictographs, formal logic, or mathematics) should be able to benefit significantly. (6)
Engelbart speculates computing machines can exercise a type of thinking that not only augments human patterns of thought (the “clerk” functionality), but approaches computational activities uniquely and independently of human frameworks. His notion of “direct aid to an individual in comprehending complex situations” (8) both complements and contributes to human thought through the computer. The interface, at this stage of its inception, makes possible a two-way flow of affect: the inputs of the human user prove affective to the machine, and vice versa.

Interface more directly applies to the zone through which flows of affect can be traced and localized, but remains indebted to the influence of early computer interface designers. That much of the research under this era was in the name of national security or defense raises certain political and ethical questions, however, remains a subject for elaboration under a separate project. The framework Engelbart proposes early in his career remains crude, by his admission, yet of lingering significance in no small part due to a matter of pattern congruency lurking below the surface. He identifies four classes of augmentation: artifacts—designed physical objects, language—the “way in which the individual parcels out the picture of his world into the concept that his mind uses,” methodology—the ways of organization, and training—human conditioning to work effectively (9), all of which rely on a mnemonic framework. We may immediately harken back to the method of loci, in which vital information is both sorted (given a place in a mental palace) and assigned a visual attribute. From this model, the parallels to Engelbart’s system are unmistakable. The way in which to build an interface, as a conjecture, is to align functionality with memorability. Thus, Engelbart sees in the
interface a move towards transparency (which, subsequently, will be critiqued by David Bolter and Diane Gromola).

However, to explore the theoretical motions of the everyday that rely on the memory, it becomes necessary to first look more directly at the consequences of interface theory. Text as treated by Mary Carruthers lends itself to a relational, associationist orientation (evidenced by common nomenclatures, such as “within” or “from” any given text). Similarly, the “augmentation” developed in Engelbart’s early theory also operates using an associational frame. For illustration, the basic unit of writing—the letter—represents a typographical marking: a subunit of language, contained within text. Nevertheless, in turn, letters become meaningful only when aligned with the recognition of readers. The question of signified-signifier becomes important at this acknowledgement of association. As a significant problematic, however, the influence of setting of reading on the acts of reading in which the scene conjoining text and reader encapsulates particular affordances, remains to be seen. And also, the notion of direct association between interface affordance and interface affect necessitates elaboration.

The spaces surrounding an act of writing or reading heavily occupy Donald Norman’s treatment of simplicity. To an untrained gaze, Norman writes, a cluttered space may appear unkept and disordered. Yet to the occupant of the space, who has gained a familiarity within it, a relocation of things would produce a sense of confusion. Sherry Turkle expands the relationship of a situated user within an interfaced space, which as a theme also receives consideration in Lucy Suchman’s treatment. Simplicity exists within inevitable domains of material complexity, Norman argues, only insofar as a mental
model or cognitive map exists in the occupant (user) of the space. Beyond an obvious connection to the method of loci, attributed to Simonides in which cartographic resonances permit the development of subjective memory systems, the matter of post-textual space trouble the waters of interface theory.

Notes Norman, “the problem lies in the interaction of the complexities of technologies with the complexities of life” (6). Norman sees both sides of the equation, the technological and the encapsulating world as already inherently and irreducibly complex (to be read as a separate term entirely than complicated). The positioning of one meeting the other, as in whenever a given technology is engaged, does not reduce the subsequent nature. To Norman, only as a consequence of conceptual models, defined as “the underlying belief structure about how something works” (34), can these complexities (in plurality) become manageable. Models arise naturally, Norman asserts, from the desire to “understand what is happening” (39). These explanations can be, Norman admits, “sometimes newly created while we are trying to understand our experiences” (39). Norman co-implicates and associates expectancy and interpretation, ultimately assigning a looping quality to their evolution. Norman’s assessment implies that, by virtue of experience, an interpretation reinforces or modifies expectancy. Subsequently, expectations guide experience (but remain open to modification).

Metaphorically speaking, Norman’s intersection can become akin to writing the map to navigate a given space while walking through it. Thus experience can serve metacartographic ends by triggering new expectancies that, in turn, promote understanding the experience in particular ways. One user may find a given interface pleasurable, and
another indicates that the interface is difficult. Norman asserts, “whether something is complicated is in the mind of the beholder” (45). However, in this reduction to expectation from co-implication, Norman seemingly nuances his argument away from interface-centricity. While the so-called “mind of the beholder” remains able to modify its stance to better fit the circumstances as experienced, Norman seems largely wed to a predominantly phenomenological lens. It is, however, a position that runs afoul of the materialism present of and in the space. My task therefore becomes to explore the notion of the interface more fully, as generative sites from which emergence of expectancy results. It bears repeating that, without the memory rhetoric previously described in prior chapters, we may simply see things like what happened within Wark’s text as merely a happy consequence of fate or function of delivered design. Such interpretations, however, overlook the presence of a collapsing internal and external binary, which then acknowledges a confluence of otherwise independent memory systems. And Norman’s turn to the structure of cognition as a means of extracting simplicity from complexity offers little when it comes to the external contexts beyond apprehension.

The barriers that separate text or technology from reader or user (in any given context) lose their saliency when viewed through a spatial lens. Engelbart’s treatment of interface as augmentation runs in contrast to Norman’s concerns. For demonstration, a question posed by George A. Miller offers a productive invocation. Miller asks, “where in the world is information?” (3). Miller articulates a “priority of space as an organizing principle” in which information located spatially employs association as a means of promoting recognition. Information, Miller finds, extends beyond physical accessibility
of tangible artifacts. Accessing it therefore pertains less to moving than having “a conversation with it on some console whose spatial location relative to the information is completely irrelevant to the system” (5). Users could better encounter information if organized graphically, Miller argues. Such designs represent ways to apply natural tendencies, again harking to memory as a guiding trope for the delivery of computer functionality. The interface in Miller’s sense of information exchange relies on natural inclinations towards spatial association as a queue for building memory. It is from this general idea of familiarity that the user-friendliness of any given interface finds its footing. More significantly to the present discourse, familiarity renews the cartographic understanding of everyday.

Association, whether expressed as Norman’s treatment of simplification or Miller’s spatial reasoning, places a very high premium on training and conditioning. In Miller’s and Norman’s treatments, technology may be complicated based on the congruency of mental models with the interface’s design. The simplicity and complication exist in the interpellation of the user’s gaze. Yet, to this outlook, the thing being accessed remains stable and separate from the user. Also, the interface remains passive and inert until the users animate it through his or her actions. While technological trees may fall in the forest in the form of advanced features beyond the knowledge of the user, Norman and Miller would answer something to the effect that such noise is unimportant. However, Norman and Miller neglect the possibility for the setting around a given artifact blurring with artifacts itself, as users (aka: readers of texts, players of games, etc.) negotiate the totality of circumstances. Where, we could ask of Norman’s
conceptual model, does one complexity begin and the other end? The subjects themselves are not only within the materially complicated domains, but accountable for developing models that permit the navigation of what otherwise would be unrecognizably dense scenes.

It would appear that the interface represents as much an activity, an act of “linking” divergent systems. John McNair, in studying the iconography of graphical computer interfaces, offers a similar conclusion. Subsequent scholarship by Nathaniel Rivers and Stewart Whittemore extend McNair’s intervention in computer icons as expressions of memory, and suggest a memory can broadly inform the design and critique of graphical computer user interfaces. However, interfacing imperfectly links memory to computing: the threshold space that is the interface speaks neither system’s tongue naturally, and each “side” (the human and the nonhuman, or the human with other humans through a nonhuman intermediary) requires a translator. The interface thus not only includes associational and spatial correlates to become affectual by linking divergent systems and developing transferability. Bonnie Nardi would consider this a function of interaction within a rubric of context and consciousness as related themes.

**Imagining a Future for the Everyday**

. . . all this witnesses not just to man’s physical presence but also to the omnipresence of consciousness human activity. So do other things under the surface of the landscape that I cannot see—tunnels, basements, subbasements, sewers, electric and gas conduits—and above the surface, when the atmosphere is being worked on to free it from the fumes man pours into it and is streaked with
the vapor trails of planes in which and between which human consciousness has established incredibly complex controls and informational patterns.


The interface, most especially as theorized by Brenda Laurel, Sussane Bødker, and Alexander Galloway, provide a way to expand the question of affect within an interface space. Interface theory, as either conceptual space or material structure, relates to the capacity of affection in Alexander Galloway’s treatment. Galloway asserts “an interface is not a thing.” Instead, he offers a broader and more conceptual understanding in which “an interface is a relational affect.” For elaboration, to Galloway, engaging the matter around us represents more than crossing a threshold (as in the case of interfacing with a room by walking through its door).

Similar affectual consequences remain present in other forms of interface, such as syncing with cloud storage through the dimly lit screen of a personal computer or establishing the protocols by which physical computers engage each other, as described in Alex Kirlik’s intervention. In Galloway, the capacity for affection arrives in several forms—physical proximity being but one possible incarnation. Problematically, interfaces involve permeable barriers between systems. Dust particles detected by the cilia, and the sound waves impacting the eardrum offer means of not just of attenuation to the particulars of the space, but affection in the sense that the room connects by way of expectancy or familiarity from entering agent. Affection represents a strong turn from augmentation in the interface, and suggests a possible future for the everyday.
Galloway establishes as his goal two goals, to define and interpret interfaces, those “mysterious zones of interaction” and “autonomous zones of activity” (preface). It would appear, at the highest order of granularity, that the interface to Galloway represents an activity threshold as much as a physical or conceptual space. When divergent things influence one another, they could be said to interface (thus resituating the theory of space to one of activity). In this juxtaposition of action and space, affection begins to take form. Galloway observes that the interface becomes “a general technique of mediation evident at all levels; indeed if facilitates the way of thinking that tends to pitch things in terms of ‘levels’ or ‘layers’ in the first place” (ch. 2). The interface thus takes a step past being a screen for systems and space in which connections between systems takes root, and encroaches instead on becoming an organizing (cartographic) turn. At the heart of the relational affect rests a guiding function: to interface is to connect, in particular ways, across distinguishing characteristics of process and protocol.

Interfaces, in Galloway’s treatment, move from spaces of augmentation to spaces of affect. When conceived of as the spaces that link independent systems (whether of some facet of human experience, such as thought) or the operations of a computer, interfacing becomes increasingly conjoined with the everyday. Yet turning to affect represents a large and significant challenge to the concept of interface. Technology responds to user input amidst a swirl of other processes and the user builds or corrects her/his mental map from prior experience. Interfaces surround and envelop writers and reader(s) of text, in the same way the context of and technology being used connect with the users. Technologies, with their various protocols and databases, connect (with) users
with their associated habits (with affiliated senses of familiarity, locality, or decorum), as matters of routine.

Technology as an extension of agency, broadly construed—whether in a cloud of storage or unrelated to computers—relies on the presence of networked ecologies. The actors in these scenes are barraged by stimuli well beyond their capacity for apprehension. Norman, in interjecting a language of subjectivity to the conversations of complexity, neglects the conceptual and material intricacies of interface theory. While he sees and speaks of the generative nature resulting from mental models attenuated to the surrounding conditions, his thought cannot account for non- or post-human agencies. That machines may talk to each other, affect the material surrounding, or resist input cannot find lodging in Norman. Miller approaches this issue more carefully; his treatment of the subject senses that information remains salient beyond the mental constructs of use. It is not a far cry to see associational logics similar to those deployed by Miller or Norman in several similar theories familiar to rhetoric, such as the terministic screen developed by Kenneth Burke or the paradigm of Thomas Kuhn as two examples. Engelbart’s early developments of interface as simple extension instead turned towards developing spaces of affect. And the similarities between these ideas may indeed benefit through a close comparative analysis across these terminological inroads. Yet, such analysis rests beyond the scope of present study. Rather, suffice it to note that the lines of subjective gaze and material conditions begin to fold inwards in ways associational gazes cannot account for.
At the onset of this chapter I invoked a logic aligned with Norman’s situation reading as I placed writer (me, Wark, etc.) in the midst of situated activity. The writers—I, Wark, Wark’s readers—struggled to recognize a fitting language to the situation and looked to the available outlets at that place and time for guidance (memory, the resources of the computer, a peer’s response). Help was found by transgression of boundaries, and related languages. Wark, or I, could no more assume ownership of the product that resulted than those people and things contributing along the way.

A conceptual space—which correlates with physical zones of interactivity—gains prominence by virtue of affectual consequences. Settings are not simply inert awaiting processing through the activated conditioning of the subject, as each subject possesses a unique and active memory. Once conjoined at a given space of inquiry, the various memory systems began to synchronize into a recombinant whole. Yet the space itself, with its particular affordances facilitated the alignment of otherwise independent systems of memory, contained a logic contributed to the emergent process that transpired. Norman places the intersection of systems as subjected to conceptual models. However, the interface also resides at the fringe of the body and contains dynamic properties beyond the cognitive map of a subjective gaze. Norman’s answer essential boils down to developing alignments between mental models and interfaces. Simplicity results, which in the sense Norman proposes neatly occupies the conceptual space of a non-linear emergent construct. Norman hinges on a reductionist tendency—but, before taking that fateful step, more closely positions “simplicity” as the consequence of encounters within a complex space. In sharp contrast to his interests in complexity, the conceptual map
remains a means by which to avoid complications. The everyday in this articulation represents all possible interactions within a complex space. While his concession that at any given point of intersection both systems adapt allows room for qualification, adaptability and affect remain blind spots to his conceptual thinking. In retrospect, it is these vary spaces that may best paint a future for the everydayness yet not experienced.
Now as [Paul] was going along and approaching Damascus, suddenly a light from heaven flashed around him. He fell to the ground and heard a voice . . .

—The New Oxford Annotated Bible: New Revised Standard Version with the Apocrypha

In the conversion narrative of Paul, heavenly light and a booming voice initiate a transformation from zealous prosecutor to early leader and eventual saint. His experience on the road to Damascus leaves him blinded and temporarily crippled for a period of days. As a consequence, or so goes the story, he becomes a prolific writer and missionary in early Christianity. Paul’s story, of course, can be understood in a variety of ways including those beyond the realms of theology or spirituality. Booming voices and bright
lights may be viewed as products of an imagination run amok or, as suggested in *The Last Temptation of Christ*, impossibilities that simply never happened and were invented for strategic reasons. Perhaps his story could be alternatively viewed as emblematic of prose from a historical period; after all, much of historical note can be extracted from the intersection of Hebrew, Greek, and Roman philosophies (and rhetorics) his writings represent. And, of course, Paul could be treated as a form of “Rollo Tomasi” (a fictional character invented to represent an anonymous subject in the film *L.A. Confidential*) in which a group of writers use a shared pen name to draw upon the authority of a pseudonym. Such varied readings position Paul as ambitious writer seeking political capital, a zealot, or an opportunist.

Each of these treatments (and many others unlisted) could be mined lucratively, but this chapter has different reasons to begin with his conversion story. Paul recounts a sensory experience that becomes a sign of sincerity for and basis for the authority of his writings. To offer a relevant speculation, what if Paul experienced a form of false memory or hallucination? If so then the activities of the smallest of cells would become a loud voice in theological, cultural, and spiritual circles. Rather than hear a light or voice, his reported brush with divinity becomes merely a function of his brain. Understanding the bio-physiological functioning that contributed to his writings would then furnish another way to interpret his narrative.

Paul’s conversion narrative points to an intersection between rhetorical memory and neurorhetorical discourse that serves as a conclusion to this work. At this intersection, rhetoric gains a interjects an alternative trajectory for future studies. For
instance, neurorhetoric approaches memory as not merely *adaptive* or *responsive* to environmental stimuli, but rather as anticipatory and plastic. While focused on that which resides “in” the human subject, neurological studies of memory sympathetically question the common notion of encapsulation by illustrating an extended approach that cannot be comfortably reduced to the cellular processes embodied within a mind. By treating the internalization of memory less as a function of localization and more as a function of examining memory’s situated and material facets, the neurological approach latticed in this chapter challenges the internal/external binary. A neurorhetorical reading of memory revisits the phantastic tradition, which both theorizes plasticity and supports moving memory from “brain bound. Rather than a move towards simplicity, the neurological frame interjected in this chapter produces a generative lens that suggests that the next frontier for rhetorical memory can be found in situated neurological networks. Ultimately, a (re)turn to the neurological offers a conclusion which demonstrates and extends several components of the theory of rhetorical memory explored in this dissertation. An exploration of neurorhetorics for its implications on memory offers a potential direction for future research, and conclusion to this dissertation.

**Illuminating the Possibilities and Problems: Considering Neurology and Psychê**

Speech is a powerful guide, which by means of the finest and most invisible body effects the divinest works: it can stop fear and banish grief and create joy and nurture pity . . . Fearful shuddering and tearful pity and grievous longing come upon its hearers, and at the actions and physical sufferings of others in good
fortunes and in evil fortunes, through the agency of words, the soul is wont to experience a suffering of its own.

—Gorgias, *Encomium of Helen* 8

In the Sophistic treatise *Encomium of Helen*, words gain agency as they become physical in the brain of the hearer. Gorgias positions the seduction of the symbolic actions found in speaking and hearing in the physical body through engaging the soul. Essentially, the nebulous property of the body referred to as a soul becomes a core part of the agency of words in that it responds to some languages more than others. Words gain a corporeal form, the argument continues, through their ability to resonate with and entice an immaterial but influential soul. Sophistic training of the sort alluded to in Gorgias’s *Encomium* can be read then as an education into the means of finding speech patterns that entice the different types of souls to respond in ways desired by the rhetor. In Plato’s *Phaedrus*, which is admittedly rarely read in concert with the *Encomium*, the character Socrates observes “hence a certain type of hearer will be easy to persuade by a certain type of speech to take heed such and such action for such and such reason, while another type will be hard to persuade” (271). Again, but in a treatise often read to conflict with the Sophistry attributed to Gorgias, the soul becomes a basis for the susceptibility and responsiveness of a person to a speech act. Any listener’s intrinsic characteristics develop into susceptibilities (or lack thereof) for certain types of speech, the character Socratic notes. Concurrently, the ways in which a person physically responds to speech—whether through emotional states or attentive ones—stem from the influence of the words on the soul.
As recounted by numerous commentators on the relationship of rhetoric to philosophy in both Platonic and Sophistic texts, the soul (psuchê) exhibits an interdependence with the technê offered through rhetoric and/or dialectic. Ramsey Eric Ramsey once quipped that his deliberate misreading of Plato’s Gorgias productively situated rhetoric as vanishing within rhetoric in the text. Ramsey employs this slight of hand to demonstrate “this telos of rhetoric [to be concerned with winning the conviction of one’s hearers] is ultimately concerned with the human psychê because any conviction one holds or can come to hold, for Plato, is held in/by one’s soul” (250). Fridrich Solmsen offers a similar position by drawing from the commonality that psychê also references life force. Solmsen’s reading could be viewed as an early invocation of what Henri Bergson would later term the élan vitale in reference to an irreducible organizing force. Solmsen recounts that the psychê to Platonic thought was to be protected from its susceptibility to corruption (359). Plato, in this very brief recounting of a very broad and longstanding conversation, could be read to find agreement with a Sophistic position concerning the capability of a soul / psychê to respond strongly to the magical gestures of rhetoric. Rhetoric could then, as a possible interpretation, become a study of affect and symbolicity. This reading would suggest that a philosopher in a Platonic sense would properly revere the psychê as more essential than its house (the body) in contrast to a Sophistic approach to rhetoric would view the soul as something to exploit and manipulate.

These observations do not endeavor to valorize one approach at the expense of the other, nor do they construct a rhetoric of the soul, if such a construct were to exist in
anything beyond a metaphorical realm. Rather they point towards a historical relationship between memory, body, and rhetoric. In other words, current interest in the neurological seems remarkably similar to historical debates concerning the place of the soul in argumentation. Yet there are multiple counter-readings that could easily render the connection problematic. For illustration, an agreement between the Platonic and Sophistic positions concerning the soul’s capacity for being led astray by rhetoric overlooks the possibility of an active soul. Each perspective sees the psychê as somewhat inert and defenseless. Souls, if they accept the various invocations and engagements that are presented, adapt and can be readily led astray when presented with an agreeable rhetoric. To account for such passivity, each position suggests a need to employ a structural taxonomy of souls to account for why some will respond favorably to certain conditions or overtures while others will remain resistant. Charting an agreement on the concept offers something of a prescription the various witchdoctors (whether real or imagined by a calculating Plato) can write. As the psychê goes, by way of this logic, so too would the mind, the body, and the lens through which to see the world.

Interjecting an early treatment of the soul and showcasing the shared presuppositions present extends beyond claiming a stake in that debate. Instead, it highlights the risks associated with pathological approaches. It is not too far leap to start by developing a concept like the soul or psychê and end by suggesting a flaw in a given case can be reduced to a type of disease. The problematics introduced by an immaterial concept (soul) on a physical and biological construct remain salient to early forerunners building a neurorhetorical construct. Their efforts reopen old questions concerning the
conceptualization of the mind, its relationship to metaphor, and how the affects of the past underwrite or trouble the waters. It would seem, from these early forays, that the relationship of the internal (“neurological”) and the rhetorical enjoy an existing and longstanding symmetry. Other than performing an understanding of rhetorical history relative to these related questions, a gaze at the past relationships between brain and rhetoric under the vocabulary of psychē offers a cautionary note about reading through neurology to inform rhetoric.

Against Simplicity and Equivocation

Fig. 5.2: “Visualization of a DTI Measurement of a Human Brain” by Thomas Schultz

Contemporary neurological inquiry and rhetoric introduces the problematic possibilities of simplification and equivocation. However, the brain cannot offer a
proverbial silver bullet to resolve or explain fundamental questions that benefit from remaining open to multiple lines of inquiry. Instead, normalizing human functions becomes immediately problematic for ethical reasons. Also, the invocation of a neurological framework may suggest terminological equivocations that overlook the value of maintaining productive tensions between the bases of knowledge. A critical neurorhetoric must avoid these perils.

These issues are demonstrated when a shared conceptual standpoint sensitive of Platonic and Sophistic positions on the soul haphazardly lead to localizing susceptibility to persuasion to one part of a given hearer or reader. Neglecting the complexity and richness of the rhetorical and the neurological permits falling into several mistaken understandings of the intersection in which the whole—in this case, of memory—can be localized to one particular part of the brain or neurological network. A critical neurology challenges decontextualized brain research that generate such reductionisms. The relationality of two divergent fields—neurological science and rhetorical inquiry—can too quickly find points of agreement without looking to points of tension as productive points of inquiry, and a part of the neurorhetorical method must remain deliberation as a means of avoiding such infolding. Neurorhetorical methods could easily violate any of these obstacles if they did not watch their footfalls carefully.

To explain, brain activity and the susceptibility of a soul in a classical Greek sense can be hastily and problematically viewed as symmetrical. These terms can be brought into fruitful conversation, provided their places of divergence are not neglected. Sketching a method of investigating neurological inquiry on memory requires addressing
the various issues of simplification. In Plato’s or Gorgias’s articulation, the soul can overwhelm and outweigh other faculties of reason and logic. If so, it would understandably remain a controversial position to any humanistic perspective that values rationality as an exclusive domain of agency. If an irrational soul can either constrain or advance convictions, the rational brain need not apply to discourse. And suddenly, a conventional reading of Platonic anxiety can be brought to bear on the problematic. Yet such iterations of susceptibility to guile would require a commonality or a sense of familiarity with which to work.

Looking to George Lakoff and Mark Johnson’s treatment of metaphorical reasoning, for example, it would seem that memory gains a similar primacy to understanding affect. To Lakoff and Johnson, all reasoning is done in relationship to other concepts. From birth onwards, things are learned and unlearned based on their relative strength of association with other concepts. Lakoff and Johnson use an associational logic to revisit the existing line of thought concerning the relationships of psyché to rhetoric. While Lakoff and Johnson do not employ Platonic perspectives on body and soul to generate their conception of metaphor, in all three schemas memories become prescriptive insofar as they generate material reflexes. Metaphoric, Platonic, and Sophistic thoughts on the intersections between symbolic actions and physiological responses correspond to how certain words, smells, or images influence a bodily response. All sets of terminology align physiological with rhetorical perspectives, and the neurological, without undue reductivism, reclaims a sense of memory’s influence in the present. Neurology cannot, of course, discredit an existing line of rhetorical thought.
Instead, it may permit productive revisitations of existing discourses without returning to a reified or reductive view of the brain. Rather, neurorhetoric offers a collaborative and transdisciplinary lens that can also revitalize the phantastic tradition (as well as other themes within rhetoric). The work of this chapter becomes to address neurological intersections with memory more fully, without resorting to pitfalls like simplification and equivocation.

**From Paul, A Neuroquestion**

In thinking of the availability of an audience to be persuaded, it may be helpful to reconsider the remembrance mechanisms of prior experiences. For illustration, Paul’s story can serve as a site for interrogating a neurologically infused pathos. William James’s 1902 *Varieties of Religious Experience* lecture examines “medical materialism” as a means by which religious experience could be understood through neurology and notes, “. . . medical materialism seems indeed a good appellation for the too simple-minded system of thought which we are considering. Medical materialism finishes up Saint Paul by calling his vision on the road to Damascus a discharging lesion of the occipital cortex, he being an epileptic” (14). The now familiar conversion narrative of Paul has yet another reading associated with it in James’s lecture: that of an honest accounting of dishonest (diseased) perception; but, as James senses, the reified view of merely placing sensation and perception as products of physical (brain bound) processes lends itself to an unduly simplistic viewpoint. Viewing a given experience as pathological also becomes generative of ethical and political problematics. Essentially, to think of
Paul’s grounds, his lived experience, as products of disability interjects an allure of a decidedly problematic nature.

In a synopsis of neurological research by John S. Duncan et. al., seizures of an epileptic variety come from an “abnormal excessive or synchronous neuronal activity in the brain” (1089). Duncan et. al. outlines a “present belief that most common epilepsies are complex traits with environmental effects acting on a background of multigenic or oligogenic susceptibility, mediated by common genetic variation . . .” (1090). The epilepsy William James connects to Paul’s conversion, Duncan et. al. positions as resulting from a complex interplay of factors that meet at a given place and time. Quite literally, the brain becomes wired to fail in certain contexts. Epilepsy exists not on a fixed place in the body (a brain, a central nervous system, etc.) and cannot be reduced to even small anatomical units, such as of genetics. However, those various interactions are unmistakably salient to the broader response of overactive brain activity under certain conditions, as Duncan et. al. are quick to note. The contemporary view of epilepsy relies on a complex interplay of factors, from genetic to environmental, to explore beyond a diseased or disabled frame.
Neurology seems well poised to inform from the intersection of multiple relevant themes when applied to stories like Paul’s. And, consequently, it becomes a means of unpackaging rather than normalizing a given affect and permits the application of a widely varied toolkit to sense dimensions that otherwise may be overlooked. For instance, viewing the grounds from which Paul would subsequently write morphs from the product of disease or disability to that of a unique material experience. A neurological frame can initiate an alternative reading without having to resort to an unduly reductive lens, as such possibilities suggest.

Using the idea of epilepsy resulting more from brain in context than expressly context, Paul may have had to be at a particular place, a particular time, a particular set of
conditions, and a particular familiarity for the reaction to have occurred. Like a key and a lock, only that *particular* and *peculiar* combination could forge a ground from which to write. Interrogating physiological affects in Paul’s conversion narrative illustrates a need for another lens in which the biological and the social no longer compete or divide. An alternative reading of Paul’s conversion that suggest brain (mis/)behavior underwrite the rhetorical gestures within his conversion story further demonstrate the potential for a constructive neurorhetoric. Paul’s seizure and conversion represent most closely perhaps a story of bio-cultural connection in which Paul’s recognition of a booming voice and bright light collapses the imaginary and the perceptive. The connection itself begins to invoke a false binary in which neurological outlooks fail to offer rhetorical insights. A physiological rubric, on the contrary, becomes a point from which the binary of physical and symbolic begin to congeal as an alternative rhetoric.

**Defining a Critical Neurorhetoric**

Having acknowledged pitfalls, the objective now becomes to offer a more explicit and functional method. The prefix neuro- has become a popular one affixed to a variety of fields including economics and politics. Diverse fields converging on neurology can create or reframe other pre-existing but mutually informing terminologies. This broad interest in neurology can create or reframe other pre-existing by offering mutually informing terminologies. Compound considerations of cultural and biology represent a broad neuro-turn, one discussed as a rapidly congealing “transdisciplinary field” in Melissa M. Littlefield and Jenell M. Johnson’s work. To Littlefield and Johnson, the neuroscientific fields represent more than the application or grafting of biological or
physiological findings. While such endeavors are not entirely without merit, they note, the possibility for collaboration offers particular promise. Littlefield and Johnson describe how “the neuroscientific turn has required and continues to require the thoughtful invention of a multidisciplinary, interpretive language” (16). Developing a multidisciplinary lens most directly benefits from several sources, they argue:

Conceived as a partnership between the arts, sciences, and cultural criticism, a field like neuroaesthetics, for example, not only needs to examine the structures in the brain that allow us to perceive the beautiful but also might ask how art might alter the human brain; how literary movements have changed the way that we think; how art, politics, and the body intermingle in productive and unexpected ways. (15)

Littlefield and Johnson’s “neuroscientific” turn exemplifies the sort of gesture James once employed to question Paul’s narrative opens a space for the productive juxtaposition of material (environmental, genetic, biochemical) alongside linguistic / cultural factors.

Fig. 5.4: “3DSlicer-Kubicki” by Wemps.
Kélina Gotman argues for a “seductive portrait” of the application of neuroscientific principles, in which “society and human life” become “networked, changeable, full of flowers” (72). The neuron, to Gotman, performs an equally metaphorical and “real” function engaged in being “shaped” as much as shaping “in a rhetorical to-and-fro between science and culture, scientific modeling and philosophic analysis” (72). A neuron’s “tenor” can be fundamentally seen as an “interaction” that “perpetuates the postmodern and post-structuralist projects of additive modes of intellection; reconciliation between opposites” (73).

Gotman offers a fetishized view of the neuron that generates a productive bridge between the interactivity of neurological thought and the additive modes of various post-structuralisms and -modernisms. Without unquestioned acceptance of either term as emblematic or reification of any field (neurological, or post-structural/modern), her connection warrants additional consideration as a point from which to develop a neurorhetorical gaze. To Gotman, the neurological metaphor synchronizes external and internal into one flux, one that is “not all in the head (or nerve center)” (83). Evan Thompson similarly situates the logics of the nervous system, in that nervous systems exist universally and operate to certain autonomous specifications. Thompson views autonomy in a particular way, not in the sense of insularity but rather self-determination—in the sense of being sustained by its own dynamics, but not as insulated from the surrounding world. He notes “should this process of self-production be interrupted, the cellular components no longer form a unity, gradually diffusing back into a molecular soup” (46). Further, Thompson argues that nervous systems “integrate the
organism, holding it together as a mobile unity, as an autonomous sensorimotor agent” (47).

Thompson and Gotman point to a troubling paradox—nervous systems are embodied, bodies are contextualized by environments, and nervous systems delineate the body from the environment. It would seem that the scale—of nervous system, body, and environment—enmesh and inform Thompson’s warning that “the animate form of our living body is thus the place of intersection for numerous emergent patterns of selfhood and coupling” (49). Thompson is able to “forestall” an objection to his model by synthesis: “the operation of the nervous system loops through the body (via sensory and motor observations, and therefore it is not possible that the nervous system has operational closure . . . . the organism cannot have an operationally closed dynamic” (49).

Thinking of the problem with memory, the notion becomes one of projection (into) rather than reception (from) the world. Thompson extends emergence as an individual process, using “dynamic co-emergence” as a guiding theme (60). From this notion, he argues that “an autonomous system, such as a cell or multicellular organism, is not merely self-maintaining, like a candle flame; it is also self-producing and thus produces its own self-maintaining processes” (64). As suggested by Thompson and Gotman’s understandings and applications of neurological thought, even the most ardent of neurological scientist would refrain from situating the study of the brain as distinct from context. Rather they would see the study of neurological activity as attempting to quantify the ways in which the body is affected in various contexts. Those not yet accepting the extended view discussed in prior chapters would likely still assert that the
brain is merely a place in which the physiological processes often termed cognition happen. It is a place that not only shares the characteristic of heavy interconnectivity (with new connections forged continuously), but it is reliant on environmental and ecological stimulation. For the extended view, the interconnection that transforms neurons into neuro-nets need not remain bound to within the body. In both cases, whether of a radically embodied, extended, or hybridized model, the viewpoint of neurological thought invokes as much interest in environmental queues as internalized responses. Consequently, the turn to neurorhetorics is a return to memory, one in which the past extends from the agent and distributes as a generative construct.

Nikolas Rose and Joelle M. Abi-Rached offer an analogy that summarizes this return neatly. The growing field of neurological inquiry and those fields looking for inspiration from it (neuro-economics, -politics, etc.) represent “not destiny but opportunity” (15). The brain, under such emerging technologies as the Positron Emission Tomography (PET) or Functional Magnetic Resonance Imaging (fMRI) scan permits analysis of brain functionality in addition to anatomy. Rather than looking to simplify the complicated questions of what it is to be human or to experience as a human, the neurological pursuit of a plastic brain looks to examine how a part of a whole adapt to conditions. Alternatively, using the projective lens a generative rhetoric of memory provides, it allows the laboratory to become a place from which the affects made possible of the past can distribute and extend from a network of neurological cells. Rose and Abi-Rached would also note that the study of brains as plastic sites of malleable bodily behaviors “happily co-exists with longstanding ideas about choice, responsibility, and
consciousness” (21). It would be tempting to repeat a bio-political error of situating conduct or misconduct as signs of health or disease. Such a move, to invoke a nominalized lens on the plasticity of the brain, would run afoul of the neurorhetorical gaze developed thus far. Rose and Abi-Rached instead situate the internal frontier as a space from which the phenomenological questions of experience can be fruitfully probed alongside the material questions of brain activity.

Fig. 5.5: “PET Scan nasopharynx carcinoma” by Snako.

A transdisciplinary rhetoric has the benefit of drawing comprehensively, to enrich the vocabulary using the contestations and tensions a diversity of fields can produce. To rhetoric scholars, including Jordynn Jack, Chris Mays & Julie Jung, and Jeff Pruchnic, a neurological rejection of a reductive lens in favor of a plastic one illustrates the value of a neurological frame. The neurorhetorical framework their work begins to interject does
not simply harken back to a heavily criticized cognitive or empiricist view of rhetoric. Rather, it is informed heavily by the criticisms afforded earlier bids to explore rhetoric using cognitive perspectives, which frequently became unduly deterministic. The implications of their efforts to extend neurology into rhetoric require further explication. In part, this interjection offers a means of distancing the line of inquiry from a heavily criticized reified viewpoint. However, it also seeks to further develop the significance of neuro-plasticity and -connectivity—either within or beyond the brain—as a core trope and metaphor for rhetorical inquiry. In short, the material, the subjective, and the technological can become a groundwork that neurorhetorics begin to explicate.

Mays and Jung carefully recount a tumultuous history of cognitive reductionism as a part of their situating of neurorhetorics as a rhetoric of science. Their goal, to “prohibit [neurorhetoric] from ending up anywhere” (42) aligns with the risks fetishizing a material part of the body can incur. For instance, recalling criticisms raised by scholars including Mike Rose and Brenda Jo Brueggemann, brain research if not carefully situated could revert to antiquated ways of nominalization. Those with “normal” functions, however defined, could become forms of benchmark against which others were judged. A stigmatization could result that also overlooks how a reading of neurology as a rhetoric benefits from probing the “discursive networks constitutive of contemporary neuroscience” (42). These points of departure represent critical moves to Mays and Young to differentiate the neurological from the cognitive, and refrain from returning to waters previously troubled. For further elaboration, they would note a discounting of cognitive research in composition studies due to the assignment of “truth values” to
“observations and descriptions of phenomenon” (43). They draw extensively from seminal texts, such as by James Berlin and Mike Rose, to make their case.

The need to situate a neurorhetoric as distinct from a problematic tradition of cognitive research cannot be overstated. Yet this is not to discount the value of a close reading of neurology for its value to rhetorical inquiry. As Jordynn Jack argues, neurorhetoricians should consider both the rhetorics of neurology and from neurology. Mays and Young offer a very similar alignment of the relationship between the fields, as a critical participation in new brain research can unpackage implications for writing and rhetoric pedagogy. In both articulations, the neurological viewpoint not only contains a rhetoric but also becomes generative for rhetoric. Provided the warnings of avoiding reductionism and refraining from nominalization are met, the neurological frame can entice new perspectives.

Mays and Young turn towards an effort to synthesizing two divergent fields, to “make more compelling” arguments “by the combined ethos of two disciplines” (51). Working bi-directionally, the neurorhetorical lens Jack begins to sketch both draws from and speaks to both fields and also remains sensitive to the concerns over reductionism. Jack situates neurorhetorics shrewdly as not simply concerned with the uses of rhetoric to frame neurology, although she sees such an approach as a viable line of inquiry. Instead, in her framework, the objective becomes more broadly to work both into and from neurology. While she admits that the communications inherent to the endeavors are rife with their own rhetoric, her approach invites working through a neurological frame to build rhetoric. She invokes a collaborative series of frameworks from which the fields
can converge. Nevertheless, despite the initial work calling for a bi-directional approach suggested by Jack, much work remains to be done to theorize and situate the confluence of realms as a method of inquiry.

The cybernetic or psychotropic, which could be viewed as efforts to model neurological rhetorics via computing or pharmacological interventions, can inform the intersection of rhetoric with neurological thought. In Jean-Pierre Dupruy’s treatment, cybernetics parallels developments in deconstruction, post-modernity, and post-structuralism. Dupruy pauses on a debate between two schools of thought: the analog and the digital (roughly equivalent to the continuous and the discrete). To Dupruy, these schools of thought gesture more generally to the challenges of separating physical and material investigations from cultural or philosophical ones. For neurorhetorical theory, Dupruy’s invocation of the digital and the analog offers an exigency—they insufficiently address the problematics of materialisms. For illustration, Dupruy carefully observes that cybernetics represent efforts to unpack the physics of information, not the meanings inherent to symbolic exchange. In this definition, cybernetics is a “general science of how the human mind works” (3). It further concerns itself with the “artificial totalities” and “simulacra” (models of models) also of concern through art (128). “Cybernetic totalities are always artificial totalities, in which the parts are prior to the whole. In other words, they are nominal totalities that are made wholes only by the organizing consciousness of a third element, external to them . . .” (italsics mine 128). He further notes that “the world and its representations thus found themselves flattened by logic. In this respect, Dupruy positions cybernetic models as anticipatory of themes familiar to postructuralisms: they
were only models of themselves or else of other models, “mirrors of mirrors, speculums reflecting no reality beyond themselves” (139). It is a third order, an “emergence” that consists of “knowledge without a subject” that is “embodied in norms, rules, conventions, institutions, which themselves are incorporated in individual minds in the form of abstract schemata. . .” (157).

Dupruy “offers a “nonreductionistic” view “without having to accept holism” (157) by asserting “complex methodological individualisms” and a “spontaneous social order alongside natural and artificial order” (157). The digital and the analog results in “deep affinities“ between the physics of cybernetics and “the deconstruction of the metaphysical conception of the subject carried out by the structuralists and their successors” (158). To elaborate, Dupruy projects strongly from a materialist perspective and observes,

All of this is to say that the weakening, indeed the deconstruction of the metaphysical (i.e. Cartesian and Leibnizian) concept of subjectivity took place at the intersection of the social sciences and cognitive sciences on both a macro- and a micro level. On the macro level, the attributes of subjectivity are not the monopoly of individual subjects: collective entities can exhibit them as well. On the micro level, the attributes of subjectivity are not attributes of an alleged subject: they are emergent effects produced by the functioning of subject less processes.

The deconstruction of the subject proceeds from recognizing a complex network of interactions among simple entities—formal neurons in the case of the individual
quasisubject, or schematic individuals in the case of the collective subject—and exhibits remarkable properties (160). Dupruy’s sense of emergence (a “neoconnected” sense of irreducible codependent) upends the gap between information theory (the physics of cybernetics) and meaning (the domain most often associated with rhetorical activity) and instead places a high demand on the neurological as symbolic and material. To Dupruy, the “meaning” and “physics” offer a third space of abstraction, where the studies of one informs the other (the physics/materialisms and linguistic/rhetorical collapse into what he terms a “subjectless” process).

In many respects, Dupruy’s third space beyond the digital and the analog bears an affinity with the “ecology of mind” theorized by Gregory Bateson. Also, it endeavors to illustrate the inherent insufficiency (a “wrong[ness]” of cognitive science) of exclusively materialist perspectives (25). In short, neither camp—the analog or digital, material or representational—offers as lucrative an understanding of memory as the generation of a third order. Whether under the umbrella of automata or a mathematical theory that also describes how “real objects . . . .embody the faculty of the mind”) (58), cybernetics require the abstraction of the physical and interjects problematics of scale (the neuron/the individual/the collectives as connected). The digital, analogical, physical, and symbolic become parts of a larger whole which explains the “process by which living beings become more complex” (italics mine 117). He continues, “if every organism is surrounded by information, this is simply because it is everywhere surrounded by organization, which itself, by the very fact of being differentiated, contains information. Information, because it is part of nature, is therefore independent of human interpreters
who assign meaning to it” (118). While Dupruy’s assertion challenges a relationship of symbolic action as a basis for information and accounts for a possibility in which the former exists outside the latter, it bears noting that realms beyond the human agent fall outside the scope of this inquiry. His recognition more applicable aligns information as a material and physical construct distinct from symbolic intuition, which offers groundwork from which cybernetics can underwrite a connection of neurological and rhetorical thought. To read Dupruy for this context is to rather see the forest from the trees: pointing towards an ecology of information as informative to the ecological view of the neurological mind relates memory and sensation to the same basic processes. Further, reading through a history of cybernetics points towards an alternative history of neurorhetorics. Given the relative newness of the terminology (if not the debates represented) the value of counterhistories cannot be overstated.

Jeff Pruchnic’s treatment of neurorhetorics builds from a similar concern with the juxtaposition of the physiological with the subjective, but he gives further consideration to the notion of pharmacology. He also explicitly connects neurorhetorics with the sizable corpus of rhetorical scholarship surrounding the body in rhetoric. For example, he draws from scholars including John Schlib, Debra Hawhee, and Jack Selzer to offer an embodied rhetoric from which the neurological framework can spring. Contemporary human subjectivity, he notes, “has become inextricably marked by a mutating distribution of agency and cognition, a circulation of shifting networks gathering interior and exterior capabilities” (168). To Pruchnic, Marshall McLuhan’s suggestion that new media technologies offer “an extension of man” could more fruitfully be considered a
“distribution” of man. In many respects, his notion of a “distributed” subjectivity harkens to precisely the form of phantasmic memory sketched in this project. To offer a synopsis, Pruchnic identifies two converging trajectories of thought as they related to a neurological frame. These build from the cybernetic and psychotropic frames, which account for a convergence of affective and physiological—what he terms an “intension” of self concurrently with question of affective states (externalization). Essentially a compressive gesture results in which the exteriorities and interiorities of agency and subjectivity wed themselves to a frame, which bears a kindred spirit with the notion of emergence framed in my third chapter. For illustration, Pruchnic argues

Both conditions—the exteriorizing of subjectivity and the intension of the material body—mutually create not so much feelings of alienation or interpolation, but a certain sense of ‘internal alterity’ produced by being at the center of various tangles of internal and external motivations, physiological and ideational forces. (169)

Pruchnic describes the notion of alterity by drawing across the frames of social, physiological, and technological. To Pruchnic, the interest in a distributed and material neurorhetoric stems from the surge of scholarly interest in coding and recursion. Pruchnic read’s Norbert Wiener’s hypothesis that a human may be reduced to transmittable code alongside a relative wave of psychotropic interventions in the body as scenes of rhetorical recursion. Essentially, to Pruchnic, the notion of the human is integrally related to the material realms accessible in neurology’s networked structure. Jeff Pruchnic builds a notion of neurorhetoric by rending permeable its borders with cybernetics, psychotropics,
and materiality. Consequently, a neurorhetorical frame gains other fruitful point of access for theorization.

**Arts, Neuro-lessons of and from**

Language, the prime example of the human mind, is characterized by its combinatory power and infinite potential to create units of meaning through vocabulary and syntax. In this regard, art and language share the same cognitive underpinning. Art can be infinitely combinatorial too. It should thus not be surprising that the art of many human societies is nearly limitless in creativity and skill.

—Dahlia W. Zaidel

Painting isn’t an aesthetic operation; it’s a form of magic designed as a mediator between this strange, hostile world and us, a way of seizing the power by giving form to our terrors as well as our desires.

—Françoise Gilot, Carlton Lake, and Duncan Carse
2004, some ten years prior to the composition of this project, marked a significant year in the intersection of neurology and aesthetics. Three separate experiments all seemed poised to offer significant insights into the nature of the affects of art as described by the functioning of the brain. The “decade of the brain,” to use a descriptor for the 1990s used by then President George H. W. Bush, was not too far in the past. Consequently, the prospect of using brain research to understand the various processes associated with value judgments seemed promising. In one study, Camilo Cela-Conde and colleagues considered how eight female participants responded to an aesthetic
presentation. Approximately half the respondents raised a finger if they thought a stimulus was beautiful. Over 300 pictures were carefully selected to represent a mix of artworks from many genres. The results of scans completed during the test showed works deemed beautiful correlated with significantly higher cerebral activation. In another study Hideaki Kawabata and Semir Zeki examined the brain activity measured in response to paintings from across a variety of genres. Participants had been exposed to the works several days before the brain scan. Their study provided no conclusive localization between works perceived beautiful or ugly after the passage of time. And in a study by Oshin Vartanian and Vinod Goel, forty viewed paintings were ranked based on preference and correlated with a brain scan. Only in the most strongly ranked cases was a recognizable brain pattern observed.

These three results not only neglect to provide a silver bullet—a definitive place or space in the brain from which aesthetic judgments can be made—but illustrate the inherent difficulties of employing a neurological perspective to understanding aesthetics. While this is not to say that the neurological perspective lacks merit, it is to illustrate the inherent limitations to it. Consequently recognizing these efforts, with their related shortcomings, also allows for recognizing those times and ways in which the intersection can bear fruit for the broader conversation.

The problematic illustrated by these three studies are perhaps synthesized best into a single question. How, Dahlia W. Zaidel asks, are “we to understand the neuroanatomical and neurophysiological underpinnings of all” artistry regardless of medium (5)? We may immediately harken, of course, to a Platonic critique of rhetoric vis
a vis his *Gorgias*—one in which the rhetorical enterprise represents not art but knack (like cookery). Yet the purpose of Zaidel’s invocation to peel back the notion of media, in part, rather than move into the domains of what is (or is not) artistic, rhetorical, or at some intersection thereof. Instead her project plots similarities across form rather than compresses expression into bio-physiological affect. Juxtaposing the spoken word in the contexts of all other forms of art based on their patterns of influence using the terminology “cognitive underpinning” may, at first glance, seem like Zaidel performs a reductionist reading which runs afoul of the previously described barriers. Looking as she does, for instance, for possible material places associated with emotions like fear or appreciation of beauty, or attempting to identify some sorts injuries to the brain that can stifle appreciation or creativity certainly do function to situate the brain at the core of aesthetic or rhetorical reasoning. For instance, Zaidel adopts a perspective that “the most useful insights into the neuroanatomical underpinnings of the complex process of creating art” can be found in studying brain damage (5). Or, in other words, she notes “the arts exemplify neuropsychology in action” (6).

However, despite the attention she gives to the relationality of brain functions to production, Zaidel’s work more directly looks to the vocabulary a neurological perspective can bring to bear on the matters of artistic critique and affect. For instance, the ability to convey a form of realism also includes the capacity for violating expectancies for how things do or should work. Hyper-realistic or surrealist lenses afford a recognizable quality that, in turn, can be turned onto itself. The more real, in such cases, the less reality—or, more succinctly stated, the scope of representation becomes stretched
to question the notion of representation itself. Under such a line of thought, the idea of recognizability gains a prominence that a neurological frame could be useful, which is to say that the ability to describe how far a signifying representation could depart from the observable characteristics of the signified without losing its familiarity would offer a number of tangible benefits. Zaidel also offers a very important form of qualification, which echoes previously described sentiments, when she notes that the relationships between the “art and the brain” remain “somewhat elusive because the components of art have not been fully defined” (19). Indeed, provided the notion of art remains variable—as well it should, to account for generations of new forms of production and critique, as but two offices of art—so too must its neurological affinities. Rather than resolve old perspectives or quantify the affects of art locally, the neurological perspective instead seeks to offer a complimentary and enriching vocabulary that keeps things open and malleable. The essential grounding offered, to interject a vocabulary that appropriates neurology without requiring a simplification to it, aligns with the objectives of this chapter and thus enriches the chapter. Zaidel’s intervention within a trend in aesthetics and criticism can be productively milled to inform a neurorhetorical approach to memory.

While Zaidel probes neurological correlations with the arts that turn to reductionism at times, her synopsis also illustrates the capacity for an enriched vocabulary to serve the ends of critique. From the ancestry suggested in the previously described section’s frames—the psychotropic, the cybernetic, and the cognitive—a critical non-reductive form of neurorhetoric becomes less speculative and more accessible. Yet neuro-rhetoric shares a common border with neuroscientific approaches
to art, which as a concurrent form of inquiry necessitates additional consideration. Irving Massey offers a means of describing the enriched vocabulary of neurology for the arts under the auspices of neuroaesthetics that pinpoints a point of co-implication neatly. Massey draws more extensively from representation as a trope in order to demonstrate that “the act of perception is itself a partly an act of imitation” (57). More specifically, situated between the “endogenous and the mimetic,” perception is a “negotiation” and at times “a struggle” (57). The neurological can inform sub-behavioral patterns that, in turn, become projective in a phantastic sense. But before arriving at such an analysis, which this chapter later does, the groundwork for a neurological understanding of the imagination: specifically, how the brain activates in particular ways that becomes informative to the interventions of art, necessitates additional consideration.

Massey’s perceptual intervention, for illustration, extends from and is heavily indebted to Dahlia Zaidel’s treatment of “simultanagnosia” in which the apprehension of a picture is described. Massey would note that the “constant conflict of space vs. boundary,” as one articulation, would place a burden on the viewer as a form of sense maker (54). For instance, she notes, that a picture “is always actually or implicitly framed” which results in the picture needing us as viewers to perform certain actions (55). We never see the whole picture, only that which is packaged for consumption. Anything beyond or outside the frame belongs to the eye of the viewer, while a building she notes by contrast does not place similar constraints or make similar demands of the gaze.
Massey, however, offers a resounding qualification that helps differentiate neurological approaches to criticism from performing an overreaching act of reduction. She notes, for instance, that the processes associated with brain functionality cannot “help us to decide whether we like the poem, or how much” (48). As it relates to the neurological understanding of artistic perception, as distinct from attempting to situate creativity within the brain, Massey’s point raises several alluring prospects. Beyond but inclusive of the notion of the simultanagnosia that articulates the functions that differentiate a photograph from a site-specific experience, her notion sets as distinct the un-quantifiable aspects as experience. The reified brain can speak to the various points tripped in proximity to terms such as awe, but cannot become the totality of awe-ness, to be awed. Perhaps more succinctly stated, Massey observes “neurosciences is best at connecting certain features of an aesthetic process with specific events in the brain, but artists and consumers of art care more about the integrated processes, the whole experience, than they do about localization” (19).

The project of neuroaesthetics could then be summarized to answer three questions: to probe the physical correlates to invention, to explore the mechanisms of affect, and to identify the material basis of symbolic descriptors. In these ways, the neuroaesthetic gaze becomes particularly fruitful to rhetorical inquiry. Massey would invite a claim derived from function versus localization—what the brain does versus where certain processes are housed. The former aligns brain science with trends of conversation within the fields to which it is applied, and the latter seeks to sense the sub-units that would conjoin to become a given descriptor or theme. The latter would also
offer, Massey argues, much less value to the field. It would instead perhaps “weaken or
undermine neurology’s contributions to aesthetics” (16). At issue, then, would again be
the capacity for a divergent field with distinct methodology to join and contribute to an
alternative conversation surrounding the criticism of art. Along similar veins, a
neuroscientific stab at discerning how artists function at the level of brain activity would
not equate to a totalizing expression of the artistic endeavor. The sites of production are
as elusive to pinpoint as the sites of reception; yet the effort to place, to pinpoint, or to
localize within the brain marks a departure from the opening of a meta-field sketched in
this chapter.

The Synaptics of Phantasmata: In Closing

Memory has always fascinated me. Think of it. You can recall at will your first
day in high school, your first date, your first love. In doing so you are not only
recalling the event, you are also experiencing the atmosphere in which it
occurred—the sights, sounds, and smells, the social setting, the time of day, the
conversations, the emotional tone. . . .But my pleasure is short-lived. Two days
later, in the early evening, we are startled by heavy banging on our apartment
door. I remember that banging even today. My father has not yet returned from
working at the store. My mother opens the door. Two men enter. They identify
themselves as Nazi policemen and order us to pack something and leave our
apartment.

—Eric R. Kandel
Reading memory neurorheterically revives the phantastic tradition, and augments it through terms such as plasticity. Memory becomes a distributed construct situated in networks of neurons, but no more bound to the brain than the environment surrounding the body. Rather, the mechanisms of perception that conjoin environment with cognition enmesh to become an emergent construct, an articulation and manifestation as predicated on memory functions as recollection or instinct. The ambience of a place, any place, relies as extensively on the smallest cells of the body—the neurons—as the grandest structures and acoustics of the place themselves. The city, the everyday, and the collective of which a given person is a part cannot be reduced to that person’s lived experience. However, that person’s lived experience exists across the technologies and places inhabited as much as the past embodied in their neurological networks. In this way, a turn to neurology reclaims a counter-history of memory, one which is enriched through the lens of emergence and complexity. This final section endeavors to illustrate this extension and connection through one instance within the neurological field.

Howard Caygill describes the legacies of two winners of the Nobel Prize who were contemporaries in the neuro-physiological study of memory: Eric R. Kandel and Gerald Edelman. Beyond sharing a topic of study and acclaim for their contributions, Kandel and Edelman represent opposite ends of a central debate to neurological inquiries of memory. Should memory, Caygill summarizes, be positioned “structurally or functionally?” The former, an approach championed by Edelman, focuses upon the “role of the architecture” of the brain in memory (228). The functionalist approach with which Kandel was affiliated considers the “electrical and biochemical processes that contribute
to the plasticity of the synapse” (228). Caygill considers these approaches complimentary—rather than being of binary nature, these two approaches offer a different but mutually supportive vocabulary. Working through both approaches, Caygill suggests a possibility for a plastic memory that also follows a broader trend:

In recent decades, however, developments in the neurophysioanatomy of memory suggest a radically new understanding not only of the formative processes of individual memory but also of those of social and cultural memory and, most importantly, of the inseparable relationship of them. (227)

Far from approaches of reification or reductionism, neurological studies of memory tend to consider more directly memory as a distributed and ecological construct that emerges synaptically. The synapse, rather than being a set structure, represents a vacancy or free-space for communication between neurons. The building blocks from which to consider a neural-net, a set of memories, a collective memory, and a site of public commemoration derive from the tiny gap across which neurons can communicate. This synaptic space affords sufficient structural integrity to preserve, while also promoting a malleability appropriate to developing new connections. To employ the words of Joseph LeDoux, “Let’s start with a fact: People don’t come preassembled, but are glued together by life. . . . The particular patterns of synaptic connections in an individual’s brain, and the information encoded by these connections, are the keys to who that person is” (3). In short, a synapical view lends itself to both blurring the lines of memory with perception, and allows for emergent constructs beyond the subject to transpire. It is towards the
synaptic sense of memory as both the first and final frontier of a phantastical reading of memory I now turn.

John Kubie discusses a complex interplay of neurological factors when he describes similarities between the physiological processes associated with imagination and perception. To Kubie, the “essence of perception ad imagination” are cell assemblies and mental models. With the former, “the activation of a cell assembly leads to conscious perception.” A given image or idea (a mental model) is essentially maintained across a web of related parts of the brain to Kubie’s synthesis, but Kubie notes “we have no idea how this happens.” Simply put, from the standpoint of neurology, recognition and recall bear an affinity—they are the same basic activities. The brain cannot distinguish between the images produced through imagination and those born of sensing stimuli. A phantastic approach to memory rhetoric finds such perspectives unsurprising—memory would not be found at the end of perception awaiting retrieval, but an active role within constructing a sense of the world. Kubie’s recognition of the relationship between mental model and cell assembly promisingly conjoins mental processes often viewed as separate, but remains steeped in a model of passivity and retention.

Although Edmund T. Rolls considers more closely the functions and properties of brain activity that inform emotional response, he also inserts into the conversation a broader understanding of synapsis of interest to this project. He notes that “internal feedback between [a neural network]’s neurons that can fall into a number of states. Each state corresponds to a decision and consists of one winning population of neurons firing at a high rate and inhibiting the other populations.” The notion of inhibition is
particularly promising because it suggests the possibility of competing potential
collections within a given context. The one that yells loudest by simply flooding the
synapsis becomes the more powerful connection. Rather that being a space, the synapsis
becomes a battleground. Competing connections all fire, with strength being a potential
term to discuss how the neural network functions. Rolls positions this framework as
closely related to memory functions. He notes that the “same type of noise that influences
memory is recalled influences what thought follows any one thought” (187).
Consequently, memory may contribute to “loose and particularly creative” connections
understood as creativity. Memory, approached synaptically, bears a symmetry with
imagination, perception, identity, and creativity—all correspond to the strength of
connections across synapsis. When entering this realm, Rolls reminds of a “probabilistic”
form of mental processing.

Memory as explored through neurorhetorical lens finds a material perspective
that, despite being situated in the body, is not brain bound or reductive. Understandably,
the term “neurological” may invoke highly positivistic and scientific connotations. It
certainly invokes a field that seeks anatomical understandings of cognitive processes such
as memory. And focusing on the neurological seemingly favors the individual as
divorced from contexts and dependent on a sense of reification. While neurorhetorics can
be informed by efforts to assimilate science’s understandings of mental activity into
rhetoric, it need not be confined to that particular understanding. In similar ways, it
extends beyond subjectivities in which environmental (whether cultural or material in
nature) sources of affect are neglected. Subjective approaches favor the individual,
seeking to understand the mechanisms of internal process as distinct from environmental processes. Although both approaches (subjective and scientistic) offer useful insights that remain applicable, neurorhetorics pulls more generally from a number of fields to investigate the interface the inner workings of human agents that organize and structure the environment in defiance of the binary between intrinsic and the extrinsic.

Neurological approaches to memory rhetorics concern the embodied dynamics by which intrinsic/extrinsic interact—allowing for the synthesis of a new perspective that expands from the subject of neuron to the object of materializing the past in an extended form.

Born equally of intrinsic and extrinsic (subject and environment), the neurorhetorical approach described in this chapter produces attention structures that offer vital mechanisms for providing order to otherwise disordered and chaotic environments. However, they are not divorced from those environments. The subject, a neurorhetorical approach would assert, engages in transactions across the binary of the internal and the external. Admittedly, this definition has many parts to it. To consider a brief definition by negation, neurorhetorics exist at the points between the subjective/psychoanalytical, cultural/collective, and material/real. More broadly, neurorhetorical approaches consider perceptual structures that produce order and attention (including their ontologies, functionalities, and formative processes) across realms of art, rhetorical thought, and cultural history.

Paradoxically, the thing most individualistic (the neurological basis of physical brain) can to this line of argument address the gaps between people and things as much as past to present. Gotman observes a tendency to “remember objects and events only
inasmuch as the memory conjured is useful to the body – for performing an action (such as recognizing a significant object, acting upon an impose, making tea, or fixing the fence)” (83). It is her use of “conjured” that I find particularly insightful in light of the treatment of soul previously mentioned. Gotman’s neurology is a highly philosophized one in which what the neuron does is of much greater importance that what it is. Whether defined as synapse, cell, or network, the neuron exists to connect experience with history—which, as previously defined, becomes a question of rhetorical memory. Yet the neurological approach also resides and rests on questions of representation. The image of a brain begins to also be a question of brain-image. While this may seem like a rather circular perspective employing the terminology of image loosely (aka: the image being something generated by brain activity and also being of the brain as active under conditions of scanning), the reason for such an approach is rather direct: it illustrates the degree to which a neurorhetoric can both inform and be informed by currents within post-structuralisms and –modernisms. Moreso, it points towards a future for the field of memory studies within rhetoric—one in which the present discourses in neurology can inform, enrich, and extend the tradition transformed and revitalized in response to emergence.

The work remaining to be done, as a continuation of this project, is to consider the matters of material bodily affect within a rhetorical vocabulary of memory. New means of unpackaging the functionality of the brain, ascertaining how new forms of expression and technology contribute to resonances, and studies of collective trauma all hinge on seeing neurological networks as rhetorical components that renew old questions. The past
remains with us, but the study of its continuing influence need not be constrained to one or the other—the rhetorical or the neurological. Rather, future research can respond to the possibility of speaking from a central position informed by both.
WORKS CITED


Cooper, Marilyn M. "Rhetorical Agency as Emergent and Enacted." *College Composition and Communication* 62.3 (February 2011): 420-49. Print.


Intraub, Helene, and Christopher A. Dickinson. "False Memory 1/20th of a Second Later what the Early Onset of Boundary Extension Reveals about Perception."


Kubie, John. “Perception and Imagination: A Neuroscientist’s Perspective.” 


Van Ittersum, Derek. "Distributing Memory: Rhetorical Work in Digital Environments."


