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of

Ryan P. Ireland

**Candidate for the Degree**

Doctor of Philosophy

James E. Porter, Director

Jason Palmeri, Reader

Linh Dich, Reader

Tim Lockridge, Reader

Glenn Platt, Graduate School Representative

# ABSTRACT

## FROM TRADITIONAL MEMORY TO DIGITAL MEMORY SYSTEMS: A RHETORICAL HISTORY OF THE LIBRARY AS MEMORY SPACE

by Ryan P. Ireland

This dissertation examines the library as a memory system. To do this I craft a rhetorical history of both the classical canon of memory as well as the institution of the library.

Within the Graeco-Roman Western rhetorical canon of memory was born out of an oral culture. Memorization was a tool primarily used to deliver speeches; however, the mnemonics rhetors used to remember grew into systems of memory. The use of systems is often viewed as a tool for organization, but they are also tools for memorization. If we move beyond the idea of memorization as a relic of the oral culture and view it as system, it becomes apparent that memory is still an active force in print and digital culture.

In this project I examine the library as a memory system—as a structure and institution that helps collect, preserve, organize, and distribute knowledge. The library is one of the most influential and widely-used memory systems we have for collecting and disseminating knowledge. Like the canon of memory, it remains undertheorized within rhetorical studies. This project tracks the history of the library in Western culture, as it moved from a collection of inscribed scrolls, to printed materials, to digital artifacts. I also examine a variety of counter systems—alternate forms of memory storage that push against the traditional memory structure of the library.

This project contributes to the field of rhetoric/composition by expanding our understanding of the rhetorical canon of memory, pushing it from a tool too closely associated with orality and delivery toward a more-relevant network of knowledge. For compositionists who frequently access these systems for information, this network of memory creates potential for more avenues of invention. Additionally, the view of memory as a system has the potential to recognize the flaws and cultural hegemony that take place in institutional memory. Consequently, the use of systematized memory could alter the ways in which we choose to organize and access memories. Moreover the digitally networked materials of memory can be stored and accessed more easily than ever before, creating opportunities for individuals to have agency over their own historical narratives.

# FROM TRADITIONAL MEMORY TO DIGITAL MEMORY SYSTEMS: A RHETORICAL HISTORY OF THE LIBRARY AS MEMORY SPACE

**A DISSERTATION**

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Ryan P. Ireland

The Graduate School
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Dissertation Director: James Porter

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DEDICATION

For Alex.

Stay curious.

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## Chapter 1

## Using the Genealogical Methodology to Explore Memory Systems

*Take care of your memories. For you cannot relive them.*

-Bob Dylan

*The mind organizes best around a story.*

-Quote I heard and can't recall the source. Google was no help.

There's a whole language to diner slang—some of it obvious. Hashbrowns are hash. Pancakes are cakes—unless they're blueberry pancakes. Then they're called blues. Griddle grease, oil, butter—all of it is called fat. Some monikers are less obvious. Knowing the difference between a bucket and a tub takes some time. Knowing what a niner versus a six is also takes some time. If you're sitting at the counter in one of these diners, watch the cook. Listen to the server if they're reading off their tickets.

"One over. Hash. Side bake."

The cook responds: "Three OE all day chasing a Monte. Got a scram on the fly and side of pots."

A good short order cook won't need to reference the ticket again because a good cook is fast. I've worked with guys who wield chef's knives with lightning speed and surgeon-like precision. Or a cook can be artful. Rafa, the Puerto Rican who translated for us English-only workers, had his chef papers from New York. Every dish he made looked like a menu photo. But if any cook survived any amount of time in the kitchen, memory mattered most.

You proved your mettle through memory. Orders stacked up—literally piles of tickets—and the caller at the end of the line barked a salad down to me. I was new to professional cooking—a shaggy-haired nineteen year-old looking to pay his way through undergrad. Salad station is where you had to prove yourself to move up to the hots—the egg flattop and the middle griddle, the irons.

"Cobb—no turk, sub ham, x-egg, scrap mix, use spin, toss ranch. No bleu, sub feta. Add chix. Add combo. Side house. Cobb—no turk, sub chix cold, no egg, sub ham. Add swiss, add combo. Toss house. Side thousand."

And the orders kept coming, each one of them special, each one spoken in its own language. The other cooks smirked and I frantically set to work.

I never thought about the cooking job in relation to memory until my brother, Brendan, died and came back to life. For thirty-four minutes he lay on an operating table without a heartbeat, the doctors spreading his ribs and patching his heart, trying to restore blood flow to the brain. By the time he came back it was too late.

Brendan suffered from an anoxic traumatic brain injury caused by a mishap during a surgery to correct a birth defect. Without the blood flow and oxygen to his organs, they began to shut down one by one. The brain in particular has an order of operations to shut down. The cerebellum—the part of the brain where we find our sense of balance—shut down first. Then the right frontal lobe—where personality is developed—went dark. Then the hippocampus, where memory is stored.

When Brendan came back to life, he was a different person. His personality—his interest in photography, his infuriating sense of indecision, his humor and sense of adventure—all that was gone. His memory also proved to be blighted. To this day he has little short term memory. He remembers our lives right up until his twenty-first birthday, when he had the surgery. After that, his memory is almost non-existent and what he recalls is confabulation. When he sees me now, he often comments on my beard (which I grew shortly before his ill-fated surgery). He often forgets I am married and have children. He congratulates me on this milestone often though I've been married for seven years. His sense of time is off. He thinks I am still an undergrad, working morning shifts at the restaurant to pay for a degree in creative writing.

As a cook, I recited the orders in my head after they were called. But this didn't last long. Rafa showed me how to mark plates.

"Set a piece of cheese on the plate like this for combos," he said and slapped a slice so the corner of it stuck out over the edge. "If it's special, put the extra on top. A

double and you turn it." He canted the slice to the side and asked, "Got it, *wey*?" I nodded, committing a mental image of the cheese slice to memory.

I moved up the line, all the way into middle griddle where sandwiches, pancakes, french toast, and the like were made. I took the same system and territorialized the griddle, dividing it up into sections for the cakes and sandwiches, the breads.

When I was off work, on the evenings I wasn't working at the department store or going to class, I visited Brendan. He had been flown back to the local hospital and the doctors began to work on redeveloping his brain. At that point in time we were still hopeful for a full recovery. For months, Brendan had aphasia—where someone uses a seemingly nonsense vocabulary as their own grammar.

"Spaghetti fuck all the downhill," Brendan said and I agreed. He was talking about his favorite sport again—cycling. I knew this from being around him, from trying to reconnect with the person I had lost. I knew when he talked about ladle suicide or yogurt suicide, he had to pee and I helped him walk unsteadily to the toilet.

In the mornings I had a short order slang and in the evenings aphasia. I felt like no one spoke English anymore. I just had a steady stream of bastardized words filling my head, organizing my thoughts.

My memory now is not as sharp as when I was a cook. I doubt I will ever be able to recall strings of words, orders, like I could back then. My brother's aphasia gave way to recognizable speech and I wonder how I ever made sense out of the whole thing. His personality was still gone—still is gone. Too often I find myself asking him, "Remember the time we…" only to have him shake his head, say no he doesn't remember that. For me, it's hard to grasp the idea of someone not just losing a memory, but their ability to remember. It's harder still to know that person shared your life at one point and you're now the sole proprietor of your memories.

I'm interested in the ways we store memories and how we recover them, why and how some things end up forgotten. I'm interested in how we try to make sense out of the chaos by putting slices of cheese on a plate or filling a dressing cup, how we decode aphasia and turn it into our own language. I like the placeness of memory, how I can bring Brendan back to Oxford, where he was an undergrad right up until his brain injury

and he can tell me all about the campus, the photography lab where he spent most of his time, and the house he rented on West Collins Street. We walk the buildings and the sidewalks and for a little bit it's like it used to be. Then he looks at me and says, "Ryan, I like the beard." He asks if I am still a cook and I tell him, no, I go here now as a PhD student. I've told him this a hundred times, but he's surprised anyway.

"Congratulations," he says and his affect is flat since his right frontal lobe has never recovered.

I nod and thank him and he asks what I study here.

"The way we put cheese on plates."

My mom is reluctant to rearrange anything in her house, afraid it will confuse Brendan. Stepping into Brendan's room is like walking into a museum—cycling posters on the wall, framed photos of Miami before the construction boom of the last few years. When I pull out the bins of photos from under his bed and leaf through them, the pictures themselves make me happy; their placement in a bin under a bed—a place to be forgotten—only makes me sad. A half dozen photo albums we all put together for Brendan also lie amongst old photos. He has pictures of my sisters' kids taped to his mirror, their birthdates written at the bottom. On the table beneath he has a tear-off calendar so he knows what day it is. How and where we place memories is as important as the content of the memory itself.

Why are some memories advantaged over others? Why can they be easily accessed and reproduced in large quantity while others remain tucked away or forgotten altogether? The use of language concerns me less and less the more I think about memory. Language is a peg we use to hang our memories on and it is fascinating, sure. What I have come to be more concerned with is how we curate the materials of memory, how we care for them, especially when they risk slipping into forgottenness.

**Research questions for recovering memory**

In this project I am concerned with the systems by which people, groups, and ideas are either committed to memory or relegated to oblivion. Chief amongst my concerns are the ways in which we collect, organize, and access memories. Namely I am

concerned with the library as a memory system. Wendy B. Sharer calls for we rhetoricians to "expand our professional responsibilities into realms previously marked off as territory of library and information science" (136). I examine the ways in which written texts were collected and how the contexts they are collected within—the library structures and systems—were, themselves, written. As Sharer explains, writing as an "act of power derives from previous acts of power that configure the physical and material conditions of historical research" (120). Controlling memory—through authorship, organization, arrangement, all of the practical forms of memory—is a form of exercising power. My research questions derive from the ways in which memory has been transformed or organized—the ways in which it has been "written over"—to promote certain cultural ideals.

My primary research question is: How do systems encourage us to forget? That is, when we develop a memory system, whether it be a mnemonic or a technological tool like a written record, we are inundated with choices of how to record the event and the where and how to store it. More than that, in a literate culture where memory becomes historical record, we have to retrieve the memory from the collection for it to be remembered. So the second, more practical part of my question becomes: Is there a way to recall or recollect memories marginalized by collocation systems? I believe there is and the answer has been there all along in the form of classical rhetoric's loci mnemonic. We just have not been looking for it. The idea is reminiscent of Kenneth Burke's idea that "a way of seeing is a way of not seeing" (49). Only, in this case, sight is memory—an idea more closely related by Cicero as we will see in the next chapter.

Before delving any further into the question of memory recall, I should state that I do not believe there is a definitive and totalizing method for memory that allows us to recall everything, though there is a long history of such attempts—from the Great Library of Alexandria to the memory theatres of the Renaissance where one could "remember anything" to Google's attempt to collect all print texts. Rather, I advocate for the use of multiple memory systems in the public library system. Given the technological mnemonics of today, this seems like a more real possibility than ever. Consequently, I have to ask a third, overarching question in this work: How are memories used via the library to map and remap relations of power?

Throughout this dissertation I focus on the rhetorical use of mnemonics in the library system. Patrick Hutton notes how the mnemonic is undervalued and under-theorized when he writes that "for some mnemonists the design of the structure of their mnemonic system corresponded to their conception of the structure of knowledge and so implied a vision of the world" (372). But in a world where *memoria* is a forgotten canon and the classification systems of libraries are rarely critically examined from a rhetorical stance, the implied visions of the world become accepted truths. I am more interested in finding what lies beyond the periphery of these knowledge structures' scopes.

**My project within the discipline of rhetoric**

My contribution to the field of rhetoric is to draw attention to a widely-used and under-theorized (at least from the rhetorical standpoint) system of memory—the library, with special emphasis on the public library. I hope to recognize the constructors of library classification systems as rhetors who have been forgotten much like the classical orators who were dismissed along with the canon of *memoria*. Thinkers such as Dewey and Carnegie through their classification systems affect the very ways we find research (including the texts used in this dissertation). Developing a critical view of how we find our research—in essence, how we remember—is a rhetorical skill transferable to fields outside of rhetoric. More importantly, the texts used to record history and, in part, to help define culture, are found at the public library. Conversely, the library is defined by culture in a cycle of reification. By examining the classification systems and their inherent biases, I am asking what we are reinforcing by way of circulation as our shared culture.

Memory and librarianship are broad topics that extend well beyond the scope of this dissertation. Because of my brother's brain injury I have seen firsthand how varied the field of memory can be with professionals from different disciplines tackling the issue of forgetting from many different perspectives. This dissertation will not do their jobs. This is not a dissertation in cognitive psychology or neuroscience; I am not focused on "the psychological processes by which the human brain captures, codes, stores, recollects, and forgets information (e.g., which neurons fire when a memory is triggered)" (Whittemore 13). The insight gained from these cognitive research studies is

valuable and informs my work here; however, this project is more concerned with the ways memory is stored externally. Linda Flower and John Hayes' work in cognitive psychology and memory is focused on the individual's act of writing they call "a theory of the cognitive processes involved in composing in an effort to lay groundwork for more detailed study of thinking processes in writing" (366). My project here is less concerned with the individual and her writing process and more concerned with the ways in which institutions take completed manuscripts and "write over" them by classification,[1] organization, and circulation.

The talk of classification and arrangement certainly merits a study in the canon of *dispositio* (arrangement). Or the idea of circulation could lead to conversation of *actio*. While I would encourage any further research into the library in relation to these other canons, the canon of memory must be studied prior because memory is simply the most neglected of the five canons and is in need of recovery (Reynolds, "Concepts of Memory" 245; Kalin 12; Porter, "Recovering Delivery" 6). Furthermore, the library itself acts as a giant memory storage device, making a complete and nuanced understanding of memory essential to tracing the history of libraries. The history of the library, as I point out in chapter 2, is steeped in *memoria*l culture with structures designed around the use of mnemonics. Arrangement acts as an agent of memory while delivery depends on the memory structure. My subordination of *dispositio* and *actio* as canons should not be construed as their unimportance to libraries. In fact, my study into memory demonstrates how deeply intertwined memory is with arrangement and delivery. As we will see in chapter 2, much of how memory operates is based upon arrangement—or in the case of the library, much of how a material is archived (a form of material memory) is dependent on classification. And of course delivery is dependent on accessing these memories. Also, the canons of arrangement and delivery are topics deserving of full treatments of their

[1]In library science the term "classification" carries a different connotation than the more rhetorical term of "taxonomy." Since this project focuses in the practice of libraries, I am adopting the term "classification." Heather Hedden, author of *The Accidental Taxonomist*, explains the difference between the two: Classification describes where a particular document goes, whereas taxonomy, originally used for the biological classification of things in nature, refers to the content and description of the media (xxii). Hedden goes on to note that the "majority of books and scholarly articles on taxonomies in print today are still about highly specific classification systems in the sciences and social sciences. Their taxonomists are experts in their academic disciplines rather than librarians" (xxii).

own once a foundation in memory has been laid. My intention here is to lay that foundation.

But this canonical foundation, according to some may be crumbling or irrelevant. Collin Gifford Brooke, for example, argues in *Lingua Fracta* that canons "are more like a disciplinary heirloom than they are part of our core intellectual inheritance from antiquity" (29). Brooke goes on to blame the practice of "reading the canons through the lens of the writing process" as leaving modern rhetoricians "unaware of their importance, a misreading that should be corrected" (31). Out of all the canons, Brooke singles out the "vestigial canon" of memory as particularly representative of the problem of perpetuating the canonical structure of rhetoric.

Memory, Brooke writes, has traditionally been viewed as storage (143). The idea that we will outsource memory to the page of course is reminiscent of Plato; Brooke takes the notion a step farther by stating "we will cease to exercise history because we will rely on that which is stored in databases" (31). Instead of the canonical structure, Brooke suggests viewing the canons using the transdisciplinary lens which sees them as an ecology of practice (28). In this approach "the canons supply a framework for approaching new media that focuses on the strategies and practices that occur at the level of interface" (28). Brooke's choice to use ecology over canon stresses the interconnectedness of media. We writes that "ecologies are vast, hybrid systems of intertwined elements, systems where small changes can have unforeseen consequences that ripple far beyond their immediate implications" (28).

While Brooke's work in ecologies is certainly significant and promises to lead rhetoric in new and exciting directions, I still feel the need to utilize the more traditional forms of the rhetorical canons, especially memory, for this dissertation. For a project that is largely about rhetorical recovery, the idea of casting out historical contexts like the canonical structure is antithetical to methodology (described in the next section). My purpose here is not so much to chart out new territory as it is to demonstrate how much our current forms of memory are informed by classical notions of rhetoric.

Prior et al make the case for resituating and remediating the canons of rhetoric in modern contexts in their Kairos article, "Re-situating and Re-mediating the Canons," when they refer to classical rhetoric as "a matter of history" (2). Their recognition and

revision of the classical canons "address[es] the freight of this history—woven, often tacitly, into our languages, institutions, and practices" (2). Prior et al use cultural-historical activity theory (CHAT)—an approach that "asks how people, institutions, and artifacts are made in history" (18). As part of the remapping enacted through CHAT, Prior et al examine literate activity within functional systems (18-19). These "functional systems—typified and fleeting—tie together people, artifacts, practices, institutions, communities, ecologies around some array of current objectives, conscious or not" (19). The library as a form of memory inhabits a variety of functional systems in the rhetorical history I provide in next four chapters. The history I provide benefits from and is enriched by acknowledging the role of the classical canons of rhetoric, especially *memoria*. While I am not using CHAT as my theoretical framework, Prior et al demonstrate how when taking an historical perspective, the seemingly outdated ideas like classical rhetoric and the canon structure are not just relevant, but also how they continue to inform our notions of current rhetorical practices.

**Methodology**

My goal in this dissertation is to craft a rhetorical history of the library, with a particular focus on the public library system in America. The creation of a rhetorical history allows us to see what is present, but not yet studied or scrutinized in our field. The reason to recover this history is to further deepen our understanding of memory as a rhetorical canon. The public library, as I demonstrate in chapters three, four, and five is an institution based on memory—specifically through the use of loci mnemonics. Additionally, the library acts as a storehouse of memory and aids in preserving and perpetuating cultural memories.

In this section, I first explain how my project is doing rhetorical history recovery work, related to other such work conducted by historians in the field. I then shift to describing the particular methodology I am using: genealogical analysis.

**Rhetorical history recovery work**

For many rhetoric historians, like Cheryl Glenn, Susan Jarratt, Malea Powell, and Victor Villanueva, rhetorical history is a method for recovering figures and communities

who do not fall into the traditional rhetorical canon, "a master narrative that started with Corax and Tisias and led directly to Plato and Aristotle, then Cicero, Quintilian, and St. Augustine, and eventually to Weaver, Richards, Perelman, Burke—each rhetorician preparing us for the next like Burma Shave signs" (Glenn, "Remapping" 287). Creating a rhetorical history that recovers figures outside of this specific lineage enriches our field by examining these exclusions "not only historically, but historiographically. That is, [...] the ways the histories about them have been written" (Jarratt "First Sophists" 68). Determining how history is written is tricky business, requiring a study of what is left unwritten as much as what has been written. Glenn calls historiography a task of "connecting the real and the discourse, and at the point where this link cannot be imagined, historiography must work *as if* the real and the discourse were actually being joined" ("Remapping" 290).

History is often presented as a map and the map is used as a metaphor for recovery in several of the rhetorical histories discussed here (Glenn, "sex, lies, and manuscript" 180; "Remapping" 287-90; Jarratt, "First Sophists" 67). Using the metaphor of the map, Glenn asks if Rhetoric as a field looked at the work of forgotten figures—women and other disenfranchised groups—and "assum[ed] that those were barren territories devoid of scenic routes, historic events, influential people?" (287). She goes on to write that the map with these unrealized regions—these desert swaths and gulfs of undiscovered knowledge—is a "canonized map embodied and reflected [in] our institutional focus on great, powerful men whose texts, lives, and actions transcended the particularities of history and circumstance" (287). Following the routes on a map such as this does not allows us to venture into territories unknown; moreover, walking the same paths as our predecessors only carves the trail deeper into our field. In a sense it creates a rut.

Susan Jarratt's rhetorical history, to use a common colloquialism related to mapping, wanders off the beaten path to recover the work of the sophists in fifth century BCE. She notes how "historians of our own century are redrawing maps which are the sophists—refilling those fragmentary sketches with new detail—and discover the significance of these histories" (67). Indeed, there is very little primary documentation of the sophists. We can see the domination of the rhetorical tradition from the very

beginning. The dismissal of the sophists is nearly immediate with Plato chastising their character and Aristotle seconding "the moral censure" in the opening pages of *Rhetoric* (67). The dismissal, Jarratt writes, "the power of simple, moral contrast between the sophists and Plato/Aristotle infected the history of thought for centuries" (67). The slandering of the sophists' character continued with them being cast as greedy charlatans who performed verbal trickery (68). But the deletion of them from the rhetorical tradition also takes a more physical form with exiles of some figures and (in what will be a common theme in this dissertation) the public burning of written work (68).

**Creating a rhetorical history: remembering Aspasia**

So how does one go about recovering such histories? How do we venture off the beaten path and navigate through seemingly uncharted territory? In her article, "The First Sophists," Jarratt examines three ways in which the sophists are recovered in the twentieth century. The first, she calls the analytic version of history which uses the philosophical categories already in place to examine "key" figures like Plato and Aristotle in relation to the sophists (71). This in effect "reintroduce[s] the sophists as an historical presence" and provides "the academic community textual and historical detail" (74). The second form of recovery focuses on performance—the ability for sophists to "call forth emotional responses in the audience through the stylistic power of their language" (73). As we will see in the next chapter, this form of historical recovery depends the acknowledgement of oral culture in early Greece—a history that is less remembered and less revered in a alphabetic-text centric world. Lastly, is the pragmatic or anthropological approach, an interpretation of history she says is "congruent" with epistemic rhetoric (74). This approach "links composition with political science and with anti-foundationalist philosophy" (75).

But these three approaches still lack specificity. The analytic, performative, and pragmatic are ways to recover the sophists in theory, but how do we construct a rhetorical history when so little exists of their work? In a later article, "The Role of Sophists," Jarratt proposes "recasting historical discourse [...] by changing the key terms through which a narrative circulates"—an approach that mixes the analytic with the pragmatic. The analytic nature of the work derives from her (re)assessement of terminology already

commonly used to discuss rhetoric (specifically as a way to "dislodge the twin columns of myth and logic" [89]). The pragmatic side comes into play as she examines the changing definitions of lesser-explored terms like *nomos* (89). The narrow focus on a single term charts out new territory and allows other rhetoricians to venture deeper into a field that is still being mapped out.

Perhaps Cheryl Glenn offers the most thorough model for conducting recovery work through rhetorical history as she has championed Aspasia of Miletus, a contemporary of the sophists and Classical thinkers, as an important rhetor. Glenn approaches her rhetorical history from a feminist perspective, which is not to say she eschews the groundwork laid by Jarratt. Rather Glenn is able to further narrow her study down both in terms of subject (Aspasia as a rhetor) and focus (how gender shapes the historiography of Aspasia). She borrows from Patricia Bizzell in providing us with three specific methods by which to construct a rhetorical history for Aspasia: "(1) resistant readings by both women as well as men of the Paternal Narrative; (2) consideration of female-authored rhetorical works comparable to male-authored works; and (3) broad definitions of *rhetoric* that move it from an *ex*clusionary to an *in*clusionary enterprise" ("Remapping" 288). Like Jarratt's analytic method, Glenn's resistance to the Patriarchal Narrative pushes against the tradition already set in place. If the dominant history were to be believed, Aspasia is "either apocryphal or a glorified prostitute" (289). Her works had been deemed irrelevant and she herself could not be "legitimized because her words appeared only in 'secondary sources'" (289). In an analytic context, we can compare Aspasia to the works already considered part of the tradition. Glenn does just this later in her article when she writes that Aspasia "was effaced in much the same way as Socrates, for none of their words exist in primary sources. Although the rhetorical tradition has readily accepted those secondary accounts of Socrates' influence, teaching, and beliefs, the same cannot be said about any female counterpart" (292). Having set up the frame of her argument, Glenn tackles the specifics.

And the specifics about Aspasia are few. As Glenn notes, historical records of the female rhetor is relegated to secondary sources—Plato, Xenophon, Athenaeus, and most notably Plutarch (Glenn, "Refiguring" 183). She also uses the few visual representations of Aspasia—a nineteenth century print and a fresco over the door at the University of

Athens—as another supporting text (180; 182). The nineteenth century print, as Glenn analyzes it, perpetuates the idea of Aspasia as a sex object, rather than an intellectual equal of Sophocles, Socrates, and Pericles. Meanwhile, the fresco shows Aspasia standing shoulder to shoulder with these same men (183). These small visual representations give Glenn some context as to the apocrypha surrounding Aspasia.

Glenn uses the analytic method to situate Aspasia within the context of Classical Greece by examining the historical records concerning the standing of women in their society. She notes that Aspasia, as an extraordinary exception to the patriarchal society, was not treated by Pericles as a sex object as is commonly portrayed. By analyzing records surroundings Pericles, it is revealed he lived with Aspasia instead of relegating her to the women's quarters (184). Aspasia's connection to Pericles provides Glenn with another artifact concerning her contribution to rhetoric. Aspasia, in Menexenus, is revealed "to be the author of Pericles' Funeral Oration" (187). Indeed, it seems this idea has been well-documented yet under-scrutinized, with early rhetoricians such as Quintilian concluding that Pericles was not the sole author of the works (187). The orations, including the most famous ever delivered by Pericles, are attributed to Aspasia (189). This finding—that Aspasia is responsible for some of the most noted orations in Classical Greece—is only found by examining the texts around her, by triangulating her contributions through existing records. Indeed, this sort of triangulation is exactly how I go about recovering lesser-known historical figures and events in this dissertation. Libraries as systems of knowledge trade on their analytic structure. By adopting the same practices used to recover Aspasia as a key rhetorical figure—namely an anthropological and analytical perspective—I hope to more thoroughly chart out how libraries shape memory.

The metaphor of the map prevails. The contested nature of Aspasia's place in the rhetorical tradition demonstrates that "rhetorical story is not neutral territory" (194). Furthermore, "the refiguring of Aspasia's role in the history of rhetoric has ramifications […] the most powerful ramification is an awareness of women's place on the rhetorical terrain" (194). Likewise, I examine how libraries as keepers and perpetuators of history continue to shape the terrain which we collectively navigate.

**Creating a rhetorical historiography: recovering cultural memory**

Sometimes a group of people cannot be recovered from the rhetorical tradition as Aspasia has by Glenn, for they have not been covered at all. They are completely off the map. In these cases, a rhetorical history is the foundational text as there are no secondary texts as with Aspasia. The history has yet to be written. An example of crafting a rhetorical history is Megan Schoen's "Rhetoric of the Thirstland" wherein she examines "one particular sub-Saharan historical context" (Botswana) (271). To craft the rhetorical history of the traditionally-oral culture of the Botswana Tswana people, Schoen analyzes "their language, [and] some features of their historical discursive practices" (272). In doing so, she is able "to delineate certain aspects of the Tswana's precolonial rhetorical history" (272). Specifically, Schoen focuses on two sites of Tswana rhetoric—the meeting place of the people and the use of praise poetry (272). Schoen's focus on the Tswana people as an historically non-literate group meshes with the rhetorical idea of recovery. Without constructing the sort of analysis and history that Schoen does, the practices of the Tswana people would not necessarily be "lost;" however, the recovered histories provide insight into the "Botswana's present-day political system, contributing to the nation's political and economic stability" (283). The rhetorical history, when executed correctly, should help explain the current condition of the subject of study.

The recovery of memory is a more difficult gambit, especially when the focus is of a culture that has been actively marginalized. Cultural memory, according to Victor Villanueva, "simply cannot be adequately portrayed in the conventional discourse of the academy" (12). Accordingly, Villanueva in his work on recovering cultural memory, "*Memoria* is a Friend of Ours" and "Colonial Memory and the Crime of Rhetoric" uses the personal perspective—mostly in the form of stories—to "reclaim and retain the memory of imperial lords, those who have forcibly changed the identities of people of color through colonization" (12). Villanueva recalls the importance and history of *memoria* as a rhetorical canon (something I also do in chapter 2); he also decries its downfall, its diminished importance. Memory, he says is important for people of color (16). The discourse becomes imbued with power. Forgetting is a luxury that can only be afforded by the "imperial lords" who seek to erase their oppressive acts through systematic forgetting. The necessary defense against this colonization of memory for

Villanueva is "personal discourse, the narrative, the auto/biography" which he sees as "a necessary adjunct to the academic" (17).

Like Glenn, Villanueva performs a recovery of a figure not usually found within the rhetorical tradition, Albizu Campos, a Puerto Rican political figure. Villanueva places Campos within historical context using secondary texts (in this case FBI reports and Spanish-Language texts); however, the personal perspective of the author's identity factors into the writing of the history, shaping the historiography before the reader's eyes and thus raising the awareness of how history has been written, is written, by those with access and means. Villanueva recalls his childhood and the serendipity leading him to study the Cuban political figure. The histories Villanueva outlines—both personal and political—provides a story that pushes against the larger narrative of a history writ mostly through the lens of white colonizers.

In *Dreaming Charles Eastman*, Malea Powell similarly connects her experience working in the American Indian archives. She notes the strangeness of making meaning on paper and calls for the reader to read the essay aloud (115). The would-be oration as she sets it up acts a series of scenes, each arising "from the physical space of an archive, a location of deliberate institutional cataloging of memory" (115-16). In both Villanueva and Powell's work, the identity of the author, their ethnic heritages, are front and center. Issues of identity and the body remain foremost in the pieces. Moreover, the authors directly relate the practice of rhetoric to the body—a form of rhetoric that, I discuss in chapter 2, was lost during the ascendency of Cartesian philosophy in intellectual circles.

**Recovering memory in the digital age**

The recovery of memory has extended into digital rhetorics, where the line between the text and the way to find the text have become entangled—essentially the conflation of the two lesser-studied canons of memory and delivery.[2] Stuart Whittemore sees this conflation in the digital age and advocates for technical communicators to "generat[e] new insights by creatively retrieving and manipulating stored memories (i.e.,

[2] Encouragement to recover memoria includes further calls from James Porter to restore and preserve memory (7). In "Recovering Delivery for Digital Rhetoric and Human-Computer Interaction," Porter notes how the invention of Google allows us to simply, "search and then copy-paste 'knowledge' into our writing without bothering to remember or assimilate that knowledge in any deep sense" (Porter 6).

content)" ("Metadata" 101). He goes on to write that "it is not happening because the affordances of most CMS software do not give the writer the ability to easily form a 'compositive image' of her text-in-progress or to understand that text's relationship to other content" (101). In his later work, Whittemore examines how "an organization's knowledge resides in the many smaller storage spaces provided by the digital, material, and human infrastructure (*Rhetorical Memory* 16). The nexus of these actors, he notes, coalesces in the field of library and information sciences, especially "because the archivists and librarians have been particularly affected by the evolution of the Internet and its ability to make carefully curated collections available with the click of a mouse" (16). Whittemore's view pushes against the idea that memory is monolithic, even within an institution.

More recently, Jason Kalin has called for us to retheorize *memoria* as a way "to understand how individuals, collectives, and publics construct—invent, arrange, style, remember and forget, and deliver—their pasts, presents, and futures" (12). He asks us to consider "how digital media affect the present and future scene of memory—the practices, places, and networks of mnemonic accumulation and circulation" (3). In this framework, he writes, "we should value remembering and forgetting, not as default positions, but as capacities of memory" (3). More than just recovering *memoria*, Kalin suggests we move it to the center of the canons. Since memory's near-deletion, "we now ostensibly distrust our living memories more than our technologies, thus reversing Plato's attack on writing" (an attack described at length in chapter 2) (24). To resituate *memoria* into the middle of the canon Kalin says, allows us to see how the constructive process of memory takes place (12). More than seeing the process, the centrality of *memoria* could, in Kalin's opinion, could further legitimize forms communication outside of the traditional alphabetic text.

**Genealogy**

In addition to being influenced by the recovery work of the scholars already mentioned, I employ a specific form of rhetorical and historical analysis—the genealogical method, as developed by Michel Foucault, particularly in his work *Discipline and Punish*. Daniel Sharp defines the genealogical methodology as "an

historical mode of inquiry" that "deals with complex processes, which can't be subordinated to some very general narrative. They must be dealt with in their specificity and locality" (np). This approach then "is concerned not with history of 'the' subject as if there were some universal, unchanging human essence which endured underneath the plethora of historical transformations" (np). Sharp goes on to state that the genealogical methodology rejects the idea of universals. Benjamin Sax defines the genealogical method as "neither a universal method nor a new form of dogmatism" (776). Fred Evans likewise notes the rejection of universals when he defines the genealogical approach as "confront[ing] ideas or practices that present themselves as universal. It reveals that they actually issue from and reflect a narrower source" (np). By constructing these specific histories from narrower sources genealogy "allow[s] for some form of alternate thought through which the present can be rethought" (Sax 780). The genealogical methodology concerns itself with "diagnosing or understanding the present" (Sharp np). Oftentimes, this can lead to a disruption in the grand narrative, during which "sciences or history are undermined through a questioning of the currently 'binding' interpretations" (Sax 776). The reinterpretation of history as I have discussed in the subsections above is central to genealogy (Sax 778).

In Foucault's essay, "Truth and Power," "'Truth' is to be understood as a system of ordered procedures for the production, regulation, distribution, circulation and operation of statements'' (133). In other words, truth is constructed and instilled, then committed to history. The process of genealogy dis-covers, un-covers, and then re-covers specific artifacts in an effort to gain a more multi-dimensional understanding of the subject. For example, Foucault in his examination of sexuality in the twentieth century, makes "various excursions into the seventeenth and eighteenth centuries or even into antiquity" without attempting an "historical reconstruction of lost worlds" (778). Foucault examines the specific, local, narrow "development of confessional discourse in the seventeenth century to find the linkages between sex and truth" (778). Ultimately he expands his rhetorical analysis of these discourses to illuminate the "truth" surrounding modern sexuality:

> Foucault must stay closer to historical evidence and 'factual' information, yet without falling into empiricism or ideological arguments. He has to base his interpretations upon the placement of often well-known facts and histories within new and daring arrays of discourses, institutional practices, laws, administrative measures, scientific statements, philanthropic initiatives and the like. (778)

Again, these practices, laws, statements, et cetera are not merely textual as McKerrow says, they are simultaneously crafted from and shaping their institution in both abstract and physical ways.

Across much of his work, but most noticeably in *Discipline and Punish*, Foucault examines the penal system. To perform his genealogy and understand the abstract concept of the "present age of penal incarceration," Foucault focuses not only on "three historically limited and clearly definable discourses of punishment—those of bodily torture, humanitarian reform, and penal incarnation" (Sax 771). Foucault's genealogy is a macabre examination of the components that create the more abstract institution of the prison. He begins by focusing his study on the body of the prisoner. He analyzes a firsthand account of a drawing and quartering told in great detail to study the concept of physical torture (3-5). He also examines the regimens of prison life by looking at the schedules and timetables of an incarcerated existence and timetables used in execution (6-7). Similarly, in chapter 4, I will be looking at the Dewey Decimal Classification system as a means for ordering the body of the library patron. Foucault then also looks at the laws created to regulate punishment. For example, he looks at the French ordinance of 1670 that "regulated the general forms of penal practice up to the Revolution" and created a hierarchy of penalty (32). In later chapters Foucault performs an in-depth analysis of prison architecture, tracing it from Classical design (171), to Jeremy Bentham's Panopticon (discussed in more depth in chapter 5) (200).

**How this dissertation uses the genealogical methodology to craft a rhetorical history**

The library is often painted as a panacea, a bastion of knowledge, an equalizer of all people, a democratic institution, open and free to everyone. Perhaps there is no more

salient example of this worldview than the one provided by Mary Antin's autobiography, *The Promised Land*, wherein she describes the Boston Public Library as a "palace," noting especially the inscriptions: "*Public Library—Built by the People—Free to All*" (341). Antin further hails the "noble treasure house" as being truly a democratic institution for a young Russian Jewish immigrant, noting how "it was wonderful to say, *This is mine*; it was thrilling to say, *This is ours*" (341). The rhetorical history I create is considerably less rosy. The library I argue, like Foucault's prison, is an institution imbued with power with the goal of controlling behavior and thought. What I do is part recovery; I am retrieving the book collecting and cataloging practices as systems of memory. Namely I look at the Dewey Decimal Classification system as a rhetorical artifact.

In constructing my rhetorical history of the library, I am also telling the stories the "imperial lords" who have used the library to colonize, homogenize, and assimilate groups into a white, patriarchal society imbued with Christian values. This means reconsidering prominent library figures like Melvil Dewey and Andrew Carnegie. The conventional narratives of these men cast them as saviors to the illiterate masses; however, I believe Villanueva's method of using personal discourse, narratives, and biographies pushes against their savior status, especially when libraries are examined not solely as a collection of books, but as memory systems.

Like Foucault, I focus on the concrete specifics within the library in order to examine the larger, more abstract institution of power. In this dissertation I analyze the architecture, design, and layout of libraries at different periods in history. I scrutinize the methods and policies used to collect books—from warfare practices to collection development policies. I examine how books are subsequently stored using card catalog systems, closed stacks, and shelving ranges. The expansiveness of the library system and its effect on their communities is further analyzed through reading initiatives, library practices, and the ordinary discourses that actually comprise the system. I tell stories as Villanueva suggests—stories about how the Great Library of Alexandria in third century BCE confiscated manuscripts from trade ships to add to their collection; stories about Melvil Dewey's obsession with the metric system and how that influenced his decimal classification system; stories about communities trying to revive themselves through literacy initiatives. By themselves, the stories are anecdotal. But when they are taken into

a larger context, they tell a larger story that centralizes around the abstract ideas of power and control.

**Outline of chapters**

For the most part, the chapters of this dissertation progress chronologically, beginning with a focus on orality and memory in the Classical era and progressing through the introduction of literacy and the loss of memory. At the same time, I introduce the library as an influential institution born from imperialism and imbued with economic tendencies. I trace both histories—memory and library—up through present day, where I focus on the different approaches to librarianship that I come to term as "counter systems."

Chapter 2: From Orality to Digital Memory: Recalling the History of *Memoria* as Place-based Mnemonics

At its heart, this project focuses on memory—the forgotten and neglected fifth canon of classical Western rhetoric—and makes a case for the recovery of memory as a system. By recovering memory as a system, we can hope to understand why we choose to remember what we recall as a culture, and, more importantly, why we commit some memories to oblivion. Namely I am concerned with the physicality of memory—the way we take memories and turn them into artifacts. The physical nature of memory happens in two ways, both of which I outline in detail throughout this project. First, is the creation of the text as memory—how we write things down, committing them to paper. Over time these memories in written form acquire value and become commodities. The second way in which memory becomes physical is its close tie to place—where we put memories and how we access them. For this second point, I choose to focus on the library. The library system as an access point is interesting because it is organized by mnemonics—the principal association with memory (Porter, "Recovering Delivery" 7).

To appropriately examine how memory is physically enacted, I outline the history of memory as a canon with special attention paid to place-based mnemonics. In this chapter I divide the history of memory into two sections. First, is the Classical tradition of memory—a review of some of Rhetorics most recognizable voices and what they had

to say about memory. I follow the Classical tradition up through its subordination into other disciplines and neglect as a rhetorical canon. The second section, New Memory in the Digital and Embodied Sense, looks at the recent recovery of memory as a canon and how Rhetoric scholars incorporate it into their studies.

**The classical memory tradition**

In this section I look at the classical practice of creating a *loci mnemonic,* which for Greek orators was a way of seeing a space as a memory storehouse and as a memory process. I first look at the foundational thinkers and texts that formed the first notions of memory—Plato, Aristotle, Cicero, Quintilian, as well as the anonymously-authored text, *Ad Herennium*. I then trace the use of loci mnemonics from completely imagined spaces to their physical manifestations, namely the memory theatres constructed during the Renaissance.

I also examine the erasure of memory and provide two lines of reasoning for why it happened. First I examine the phenomena of technological forgetting—the idea that aids beyond mnemonics would replace our ability to remember. The history covers the inventions of writing, print, and the book as aiding in memory's supposed obsolescence. Additionally, I outline the Cartesian philosophy's role in memory's forgottenness. Throughout the section I draw out the lineage of disciplines involved with memory—from oratory to English to Speech to Communication. Each of these disciplines subordinates memory as a canon in a different way until it is nearly forgotten.

**New memory in the digital and embodied sense**

This section focuses on the more recent attempts to recover and revive the rhetorical canon of *memoria*. These attempts often harken back to the Classical modes of memory, including a focus on the body and the use of mnemonics. Thusly I use Jane Bennett's work on the agency of materials—including that of the body—to preface the work here that could be described as the rematerialization of memory. In addition to merely looking at the continued importance of the material of memory, this approach calls attention to the connections between them—the networks that develop. Naturally, in discussing the networked memory, the conversation turns toward the digital age.

The impact of digital memory is felt throughout this dissertation. Digital memory and the network by which it operates, challenges the laws governing print, attempts to disrupt the value of the book, and changes the way the library operates and serves people. Moreover, the digital age offers its own contributions to memory and librarianship which will be discussed at length in chapter 5.

Chapter 3: History of Libraries in the West: From Alexandria to the Enlightenment

As I briefly mentioned, libraries were founded as centers of military might. In this chapter I focus on the establishment of early Western libraries, including the fabled Great Library of Alexandria. I trace their influence—not just as centers of learning—but perhaps more importantly as centers for warfare. In this section I also examine the material good of the text and how the library played a primary role in converting the written text into a commodity. The history of the library parallels that of memory, with the medieval period marking a period of slower growth in literacy as well as libraries. During this period the Catholic Church plays a central role in continuing the tradition of book collecting.

The invention of the printing press is highlighted as a major turning point for libraries and Western civilization entered into the era of the Enlightenment. With the dawn of the mass-produced book, interest in formalized education also took hold. Universities in Europe were established with the central building being the library. As the Enlightenment took hold in the United States, universities migrated toward a German model of higher education that highlighted the library as central to learning.

Chapter 4: Classifications of Knowledge: Melvil Dewey and the Decimal System

This chapter begins to bring the long-view of history of memory and libraries I provide in chapters two and three into focus, with the lens placed over the American Public Library. At the start of the chapter I examine the European influences on early American libraries as well as some of the first, lesser-known attempts at founding a public library. I put special emphasis on the organization and classification systems developed during this time. These systems, I posit are forms are mnemonics, some loci mnemonics and have serious and often overlooked effects. Because I intend to highlight

the APL, I provide an in-depth section on Melvil Dewey, a central figure to the field and creator of the most widely used library organization system, the Dewey Decimal Classification (DDC).

Toward the end of the chapter I outline some of the practical ways in which the classification system functions. I also note how the APL has come to act in tandem with the DDC and how the practices instilled in both might become problematic and essentialize Western culture.

Chapter 5: The Architecture of Memory: Carnegie and the Design of Libraries

This chapter focuses on the navigation of traditional material systems of memory. The venerable Carnegie library perhaps best exemplifies the APL's mission "to 'correct' the ills of industrialized society—crime, poverty and violence, among others—by providing for the working classes a more propitious alternative to drinking, gambling and prostitution" (Griffis 21). The relationship between the institution of librarianship, the building in which the library is housed, and the system by which it is all organized cannot be ignored, especially when viewed as a *loci mnemonic*. As Griffis says in his dissertation, "Library buildings give tangibility to the library organization's adopted philosophies of service and prescribe actor behaviour accordingly by affecting the staff and user's perception of themselves in relation to their immediate surroundings" (Griffis 5). In this section I am looking not just at the design of the library space, but how the space is navigated by the users. Likewise, I draw attention to the phenomena of the circulating library text—how it comes to be acquired, classified, and found by the patron. I tie the growth of the APL, collection development, and circulation back to my research question on forgetting—how do these systems begin to delete memories? The layout and design of the library building is central to this discussion.

Chapter 6: Designing Memory Spaces: The Physical Library as a Loci Mnemonic

I preface the discussion by employing a lesser-known rhetorical term recovered by Edward Soja—*synekism*, which is defined as a creative living together. The history of the library building has been analyzed by library scholars (Mattern, Radway); individual libraries have been studied as forms of rhetoric (Carnegie and Abell on Seattle Public

Library; Griffis on Carnegie era libraries). What I provide in this section is a lineage of APL design as a rhetorical device meant to shape the public's memory. In short, the layout, design, and placement of the text in physical structure of the library provides a user with a considerable amount of metadata—not just about the text itself, but also the contexts under which the information is found (or not found). I use the Seattle Public Library's main building as a case study, starting with Carnegie and tracing its iterations up through its current post-modern design. I examine the implications of design including its civic context, use of loci mnemonic, and use of the book as commodity.

Chapter 7: Counter Systems of Memory: Disruptions to the APL

This chapter is divided up into subsections to examine the multitude of systems that form in response to the dominating system—the APL. Some of these systems seek to subvert the APL, while some work in tandem with it. Still, others look to replace it entirely. I define these systems as counter by borrowing the term from Michael Warner's work on counterpublics. All of the systems in this section, are defined as counter because they eschew the traditional forms of memory-organization set out by the APL (namely they reject the use of the DDC).

**Dolly Parton Imagination Library**

In the first subsection of the chapter I examine the implementation of book distribution programs by specifically examining the Dolly Parton Imagination Library—a nonprofit that delivers books directly to children between the ages of 0 and 5. The program has been successfully implemented in local communities, state-wide programs, as well as established in other English-speaking countries.

The goal of the program is to help children develop early literacy skills before reaching kindergarten by developing their own personal libraries. I examine how the books are selected for the children and what effect this has. Statistical research of literacy skills provides the bulk of the current scholarship on the program (Ridzi et al). I build off the analysis of the program to discuss some of the ethical implications.

**Little Free Library**

The second system of library I review is the Little Free Library (LFL) movement. The LFL website describes the individual sites as "a box full of books where anyone may stop by and pick up a book (or two) and bring back another book to share." Each LFL is independent from each other, yet they are connected online through littlefreelibrary.org/. They are not operated as one system and their materials are not exclusive or even necessarily owned. The lack of system and the absence of a monolithic governing body makes this a particularly appealing site of study when discussing hegemonic power and the circulation of texts.

After outlining a brief history of the LFL's founding and popularity, I turn to issues of place and materiality. Because LFL's are small structures that are only loosely connected, they are uniquely positioned to reach different more focused populations than a library might. I tie the LFL to memory by highlighting their construction—that is, the physical structure of the LFL—and placement as a form of *memoria*lizing. Finally, I examine how LFLs work in tandem with the revitalized canon of *memoria* by acknowledging the lived body.

**Offline Library**

A concept influenced heavily by the work of Larry Lessig and Aaron Schwartz, the offline library proposed by Henry Warwick in his book, *The Radical Tactics of the Offline Library*, works outside the enclosure of the traditional library system. Warwick proposes massive offline file sharing as a way to avoid the hegemonic powers of larger memory systems. Like the LFL, offline systems highlight the human interaction—the distribution of information between people—over the technological. His motivations for proposing such a system is largely based on the inequities of copyright laws and the economic conditions surrounding written word. Although I ultimately find his idea problematic due to its lack of *memoria*l structure, I include it in this project because it represents the sorts of *memoria*l quandaries one encounters when a system (like print capitalism or libraries or the DDC) is rejected wholesale.

Chapter 8: Re-placing the System: The Digital Public Library of America as Counter System

In a 2008 *Atlantic* article, "Is Google Making Us Stupid?" Nick Carr describes the Internet as "a machine designed for the efficient and automated collection, transmission, and manipulation of information, and its legions of programmers are intent on finding the 'one best method'—the perfect algorithm—to carry out every mental movement of what we've come to describe as 'knowledge work'" (62). Indeed, the knowledge work is also memory work—or the process of accessing memories. This section examines the purely digital systems of memory. The internet of course is ground zero for collected systems of memory.

I outline the history and underlying ideologies of the DPLA. I take two historical tacts—one provided by Robert Darnton, the founder and outspoken advocate for the DPLA, the other a compilation of lesser-known figures who made the technological advances needed for the creation of the DPLA. Where Darnton's history builds a mythos around the DPLA similar to the Great Library of Alexandria, the technological history bespeaks the practical and material concerns of such an endeavor.

I end the section and close out my argument of the library as a memory system by noting the "spin-off" projects the DPLA has inspired—the counter systems to the DPLA's own counter system. These projects, I write, provide important ways to challenge the memory structures and recover memories lost within the gaps of the dominant system.

Chapter 9: Filling in the Gaps: Working Toward Multiple Systems of Memory

To conclude, I summarize my history of the Western library, paying special attention to the recurrent themes of capitalism and cultural imperialism. The themes I suggest, are too massive, too deeply ingrained to be ignored or subverted by significantly smaller counter systems. Such attempts I state are naive and lack a historical understanding of the library as an institution of power.

Instead I call for a synthesis of material memory systems—a network of competing memories. Multiple memory systems used simultaneously I state are necessary for identifying the gaps present in the current, dominant systems of memory.

To form a more comprehensive collection of memory, we must realize where the aporia lie in the current system. Admittedly, I do not have a model for such a system; I am merely setting up the theoretical framework over which such a system could be constructed. I end the final chapter of this dissertation by calling for more concrete displays of multiple memory systems in use.

## Chapter 2
## From Orality to Digital Memory:
## Recalling the History of *Memoria* as Place-based Mnemonics

In my early scholarship on *memoria*, I made an argument tangential to that of Monica Berti and Virgilio Costa, stating that the memory systems widely used in public libraries today (most notably the Dewey Decimal Classification) directly relate to Aristotle's own loci mnemonic he used in his personal library, the Lyceum. I end that section by stating that a stroll through the stacks of your public library is actually like stepping into the memory house Aristotle built in his head a couple millennia ago (Ireland 310). This dissertation builds on the notion of the unconscious controlling mind, the loci mnemonic we navigate without ourselves processing our movement and the location of the text as writing.

This chapter does two things. First it provides a history of the classical canon of *memoria* by examining the major rhetors and works who developed and perpetuated the art of memory. As the history moves into the Middle Ages, I outline how the art of memory became less concerned with the body and place and increasingly reliant on writing. As my rhetorical history of memory moves in the Renaissance, I examine the effect of the printing press and the last place-based memory systems of the age before *memoria* began to fall in obsolescence. The history then moves into exploring phenomena of forgetting by examining the ways in which memory was deemed obsolete. I mainly examine two types of forgetting: the technological and Cartesian.

Secondly, I examine the recovery and expansion of *memoria* in the field of rhetoric. Specifically, I look at embodied memory and digital memory. In this section I also make the case for agency of materials as well as humans via Jane Bennett's theory of vital materiality. The idea of vital materiality then prefaces the rhetorical history of the library which I cover in chapters three, four, and five.

By doing these two things, I aim to not just help recover memory as a rhetorical canon, but also call attention to the larger memory systems we have put in place—namely the library. While I retain my focus on the library throughout this dissertation, I also make an effort to extend my view to acknowledge the circulation of materials within the

system, capable of manipulation by the other material agents, but also capable of changing the system through their movement. Like Stuart Whittemore, I resist the urge to look solely at technology as the final iteration of memory, realizing that the human agent still has to access, navigate, exploit, or change the system.

**Classical memory**

In this section, I provide a brief, decidedly not comprehensive, historical overview of the canon of memory in rhetoric. Memory, the so-called fifth canon in rhetoric, refers to the needed skill for delivering long speeches. I begin in the classical age—an era wherein literacy was not valued as it is today. The art of memory was of paramount concern for orators and audiences since orality and memory were the main vessels through which information and culture were traditionally communicated and transmitted. The ways in which a speaker could memorize a lengthy speech and assist his audience in remembering it as well, was, in short, the art of memory. Key to this art is the use of the mnemonics. Much like the canon of delivery, mnemonics have been neglected in rhetorical studies.

Although memory has become less important (and nearly forgotten) as a canon, it is essential when examining libraries. Deemed as irrelevant by the mid-twentieth century, many of the mnemonic devices developed by classical rhetors are still utilized today. My purpose in providing this overview of memory is to explain the history behind the use of mnemonics in the library and establish the placeness of memory as essential to my study.

**The classical notion of memory**

Since its inception, classical memory has been tied to place and imagery. Simonides of Ceo is credited with inventing the art of memory, due to an unfortunate incident (Yates 1-2). While at a banquet, Simonides was called from the hall. Just after his departure the roof the structure collapsed, killing everyone inside. The victims' bodies were mangled beyond recognition. But Simonides had an excellent and unique memory wherein he was able to identify the bodies—not by their remains, but by their placement in the room, for he could recall where each person had been sitting (Yates 2; Whitehead

30-31). Simonides quickly realized "orderly arrangement is essential for good memory" (2).

The classical memory tradition stems from the idea of place and orderly arrangement. The three main sources for classical memory—the anonymously authored *Ad Herennium,* Cicero, and Quintilian—all utilize the principle of location and ordering recognized by Simonides. To a lesser extent, Aristotle has contributed to the formation of the canon though it is clearly the least important canon for him. In my study, this appears to be a trend—the figures falling outside the canon the tradition, whether it is the tradition of rhetoric, memory, or librarianship, seem to have brokered tremendous influence. These peripheral figures, or figures that are recognized primarily for their contributions to other fields, are key to the creation of physical memory systems. For example, I devote sections of text to exploring the contributions of Giordana Camillo, a lesser-known rhetor who never published any written work as well as Francis Bacon who is primarily recognized for his work in science and philosophy. Before outlining each of their contributions I want to first examine the common thread of loci mnemonics in each of their methods for memory. The most notable form of loci mnemonic is the house of memories first described in *Ad Herennium*, but repeated in almost each of the figures surveyed here.

**House of memories**

The classical concept of the loci mnemonic ties to the creation of places constructed in the rhetor's mind, whether it be from an actual location or one spawned completely from imagination (Yates 6–7). Formation of artificial memory is "established from places [loci] and images" (6) by way of imagination. The loci mnemonic is composed of a background and a foreground—the background being the location while the foreground is decorated the space with images. The creation, arrangement, and decoration of these imagined spaces lends itself to the classical canon of *inventio*. To put it more simply, when an audience in classical Greece listened to a rhetor recite from memory, they were being guided through an imagined location created and existing in the rhetor's head. Taking the broad view of composition, the lines between an imagined space (the mnemonic) and a brick-and-mortar place (the topoi) become blurred. This sort

of constructed memory device—a form of artificial memory—was considered to be more artful than natural memory or recollection. The hierarchizing of these memory types goes all the way back to Plato and Aristotle.

**Aristotle and Plato**

Aristotle's mark on memory is not be as prominent as Cicero's or Quintilian's would be, but he deserves to be examined given his enormous influence over the entire field of Rhetoric. Aristotle's contribution for this project is also of note because of his interest in the hardware of memory—written texts—and his penchant for collecting them in his Lyceum. Aristotle's lesser-known work, *De Memoria et Reminiscentia*, a short, two-chapter work provides us with a vocabulary for this project that works well given my focus on the collecting of books in the form of the library by defining recollection and mere memory in relation to artificial memory. As stated, Aristotle divides the two fields into memory (the artificial) and recollection (the natural) (Allen 49). Recollection, according to Aristotle is not a creative act; it is a mere recovery of information, completely divorced from memory itself. Remembering comes before recollection (Sorbaji 53). Where those remembered memories are stored, how they are housed and called forth, is more important.

The influence on Aristotle is not hard to find. In Plato's *Phaedrus* we see the hierarchical division of natural and artificial memory as he calls natural memory mere memorization. The artificial memory meanwhile was a more artful technique wherein a rhetor need to train himself to recite long passages flawlessly—a tradition rooted in the oral, speechifying culture of Greece (Yates 2). In *Phaedrus*, Socrates draws the distinction between artificial and natural memory in terms of materiality when he distinguishes the practice of oratory from the "trust in writing." He calls writing the "elixir not of memory, but of reminding" (Plato 165), once again reinforcing the hierarchy between two forms of memory. Writing down information in Plato's view did little to improve the art of memory. The skill of memory was a purely mental exercise.

But Aristotle was opposed to adhering to Plato's model of dialectical debate: "for they had simply handed out readymade arguments to be memorized" (Sorabji 28). He wanted his students to memorize the patterns of arguments as well as how to recollect the

arguments as visuals. In essence he calls for moving beyond the rote memorization and prescription of arguments—what we might call talking points—into having students navigate the patterns of arguments or topoi (29). In Aristotle's method of memorizing "forms must be 'housed' or 'stored' somewhere, and Memory becomes that storehouse. Images function as the vehicle for moving perception into thought" (Allen 50). The image for Aristotle was key to memorizing. Ultimately, the form of memory Aristotle advocates for is "procedural"—the sort of memory that goes clearly beyond rote memorization, surpasses the memorized forms of argumentation proposed by Plato, but stops short of seeing the images as symbols for abstract ideas (50).

***Rhetorica Ad Herennium***

Written as a classroom manual, the anonymously-authored *Rhetorica Ad Herennium* lacks much the context some of the more involved treatises have included for understanding memory since the intended audience of students were expected to already be familiar with artificial memory and loci mnemonics. As the only full Latin classroom rhetoric treatise to survive, it provides us with a glimpse into the classical method for developing memory (Whitehead 29). At this point in time—between 86-82 BCE—memory was still a speech-based discipline (hence the scant written records). The manual was as much a guide to oration as it was a guide for memory.

*Ad Herennium* endorses a form of "memory for things" by also employing techniques combining place and memory much like the house of memory described above. The imagery used in *Ad Herennium* is largely outrageous, ranging from the obscene and grotesque to the extraordinary and comical. In a widely cited example of the *Ad Herennium*'s method, the author asks the reader to imagine a pair of ram's testicles to represent the witnesses (the testes) in a courtroom (Yates 11, 41; Kalin 6). Such imagery is meant to elicit an emotional response (Yates 10). The teacher figure in the text encourages students to develop their own imagery for their memories unlike Aristotle's method that calls for copies of imagery (Whitehead 29). The imagery remains paramount in the text, though the structure in which the images are placed also matters. As Virginia Allen notes in her essay, "The Faculty of Memory," "the rules for selecting architectural places on which to impose the images have to do with making images easier to *see*" (51).

For it is the memory of things rather than the memory of words that is of greater importance for the author of *Ad Herennium*. As Whitehead describes it, "proof of a good memory lies not simply in the capacity to recall information quickly but in the ability to move about memory with confidence and ease, which demonstrates true understanding of the material rather than simple rote learning" (29). The text also calls for viewing the objects in a definitive order marking the fifth and tenth objects "given a distinguishing mark, such as a Golden Hand" (Allen 51). Yates writes that the placement of objects every in units of five is "an association [...] with the five fingers" (108). As an instructive text, the *Ad Herennium* does not prescribe good memory, but acts more as a tool to develop memory.

**Cicero**

Cicero's main contribution to the canon is his treatise, *De Oratore,* a work that builds off *Ad Herennium,* giving an overview of the loci mnemonic system in condensed form (Whitehead 30). (During the Medieval era, *Ad Herennium* was wrongly attributed to Cicero, contributing to its preservation [Yates 17].) In *De Oratore* Cicero recapitulates Simonides' conception of memory. In his retelling of the event, he also includes a description of place and image mnemonics to demonstrate that "memory is fundamentally spatial: it works on an orderly arrangement of places" (Whitehead 31). His contributions to the study of memory as part of the rhetorical canon comes mostly from his descriptions of place-based mnemonics used by Roman rhetors (Yates 2). Order of memory was important; however, for Cicero, memory was also mainly related the sense of vision, which he considered to be strongest of all the senses (Yates 4). The memory system of Cicero is inundated with imagery of place.

Francis Yates notes that it must have been Cicero's "fantastically acute visual memory" that helped develop his belief and defense of artificial memory over natural memory—a hierarchy repeated throughout the history of *memoria* (19). The memory for words, he argues, is a talent for the unskilled. It takes a more artful mind to develop a method by which to house a memory for things. This more skilled sort of memory, he writes, is like writing (Whitehead 31). In a system of location-based devices, or loci mnemonics, "the background acts as a wax tablet on which we inscribe signs or images"

(31). Cicero's metaphor of the wax tablet is significant if for no other reason than the acknowledgement of the relationship that would later develop between memory and writing. As Whitehead notes, "in the place system, metaphors of inscription coexist with but are not superseded by architectural imagery, so that memory remains in conception a process of writing and of reading" (31).

**Quintilian**

Like his fellow classical rhetors, Quintilian's text, *Institutio Oratoria* [*The Method of Oratory*] is as much about speechifying as it is memory. As a treatise on the education of orators, memory plays a background role. Writing from a slightly later date, 95 CE, Quintilian's method for memorization is more developed than his predecessors. In his work there appears to be more attention paid to the placement, the architecture of memory. Quintilian encourages rhetors to remember places (*loci* as he calls them) and to recall the place and image together as an architectural structure meant to be navigated. Quintilian utilized the vocabulary of architecture to describe the creation of artificial memories. Yates credits Quintilian with clarifying the rather threadbare instruction of place memory described in *Ad Herennium* (23). Like Cicero, Quintilian describes the creation of a building in the rhetor's mind—one that is large and varied, with many rooms. Each room is decorated and filled with objects, background to foreground. But Quintilian adds something not previously seen by other classical rhetors—movement. Instead of standing in one place, imagining a room decorated background to foreground, Quintilian's orator was "moving in imagination through his memory building whilst he is making his speech" (Yates 3). As the orator speaks, he is moving from room to room, looking at each object, letting the imaginary props jog his natural memory. The benefit of a system such as this, Yates notes, is that "the points are remembered in the right order, since the order is fixed by the sequence of places in the building" (3).

In another break from the classical tradition of memory, Quintilian emphasized the written. Although he follows the hierarchy of artificial over natural memory first set out by Aristotle vis-a-vis Plato, he gives some credence to the written word as a memory device. In fact, he recommends learning a passage by heart from text (Whitehead 32). He also remained mindful of the visual nature of memory, the places wherein the writing was

"interrupted by some erasure, addition, or alteration" (Quintilian 229). Essentially he suggested adding mnemonics to the writing itself as a way to further memory. He even takes up a position counter to his forebearers in writing:

> Plato asserts that the use of written characters is a hindrance to memory, on the ground, that is, that once we have committed a thing to writing, we cease to guard it in our memory and lose it out of sheer carelessness. And there can be no doubt that concentration of the mind is of the utmost importance in this connexion; it is, in fact, like eyesight, which turns to, and not away from the objects which it contemplates. Thus it results that after writing for several days with a view of acquiring by heart what we have written, we find that our mental effort has of itself imprinted on our memory" (217).

While dismissing Plato's concerns about losing memory to writing, he also bolsters Cicero's call for vision as an essential part of memory.

Despite Quintilian's major contribution to the lineage of memory places and his alignment with Cicero, he is amongst the first to dismiss memory. Rhetoric, according to Quintilian, was divided into three parts with *memoria* and *actio* as bequeathed by nature rather than developed as an art (Yates 21). Still, his concern with "the visual presentation of the written word strikingly anticipates theories of memorizing in the medieval period" (Whitehead 32-33). We will see the visual element of memorization continue to develop into written records—an early form of organizing records.

**Medieval memory**

The importance of memory only grew in the middle ages (twelfth and thirteenth centuries) although memory was a less creative act—something one did to *become* creative (Carruthers 192). The view of course had been around for quite some time. Aristotle said that memory is not a creative act. The prominence of this notion coincides with its diminished standing as a canon. Memory as mere memorization was needed for speechifying and little else. In the fifth century Greek Sophists had contended that

"Developing a subject was . . . a process of 'invention', that is, of finding in the store of arguments that others had always exploited those arguments which were applicable to your case" (Ong 110). Sharon Crowley also notes how "memory was not only a system of recollection for the ancient and medieval peoples; it was a means of invention" (35). But finding and developing these arguments however was not an entirely creative act—these arguments were considered to be lodged or 'seated' (to use Quintilian's term) in the 'places' (*topoi* in Greek, *loci* in Latin), and were often called *loci communes* or commonplaces" (Ong 110). In medieval times the *loci mnemonic* came to represent "the residencies for the topics of invention and the seats of memory" (Calendrillo 436). Constructing an argument meant navigating place in a physical sense—places already constructed and populated by others.

One has to remember that "central to understanding the medieval artificial memory system is recognition that it rested almost exclusively on the discussion of memory in Ad Herennium" (Whitehead 42). The other works we now use as foundational "were not available to medieval scholars" (42). The medieval interest in *memoria* instead came from a culture steeped in religious belief. Cicero, widely believed to have authored *Ad Herennium*, became popularized by Thomas Aquinas' *Summae* which defined the virtue of prudence as based on memory (Yates 57). In equating memory to one of the four virtues, *memoria* moved from a part of the rhetorical canon to a moral imperative. In literature, *memoria*'s placement is best demonstrated by the various circles of hell in Dante's *The Divine Comedy* (Whitehead 45). Yates interprets Dante's various circles of Hell as loci mnemonics complete with the striking background-to-foreground imagery to remember types of sin and their punishments.

But perhaps most strikingly—and more pertinent to my focus on location-based mnemonics—we see the mark of memory on medieval buildings, especially cathedrals with their markers of memory (Carruthers 274). In *Landscape and Memory*, Simon Schama, writes that "at the same time that Dante was perpetuating, in the opening stanzas of the *Inferno*, the ancient Roman idea of the dark wood as a place where one lost one's way, the beckoning antechamber of hell, the architects and decorators of the Gothic churches in the north were busy creating a woodland version of heaven" (227-28). Churches built during this era were ornamented with a "proliferation of organic plant-

forms—tendrils, leaves, twigs, boughs, and arbors" creating a spatial reminder of "a paradise garden" (228). Although she finds some of the underlying assumptions problematic, Carruthers notes how art historians "analyzed the function of Gothic images as the literature of the laity" (274). For the Medieval era church-goer, the Gothic cathedral "was essentially a Bible in stone and glass, its images designed to substitute for the written word in communicating the stories of the Bible" (274).

The architectural, three-dimensional space had been a source of memory since Socrates' house of memories. In medieval times such places came to be physical manifestations of the imagined locales used in classical rhetoric. Institutions focused on the memorization of text especially made use of the physical loci mnemonic. Yates notes how Johannes Romberch's 1520 treatise on memory illustrates "an abbey and its associated buildings and sets of objects to be memorised in the courtyard, library, and chapel of the abbey" (107). The places, she notes are divided out by fives—"in accordance with the instructions given in *Ad Herennium* for distinguishing the fifth and tenth places" (108). The Golden Hand was now instilled in places meant to represent text.

But instilling memory into structure was not necessarily new. James Fredal, as part of the continued movement to recover lesser-known aspects of rhetoric's history looks at the placement of Greek herms within classical-era cities.[3] The herms, he writes, "were more than statues on blocks. Their erection in particular places, and in connection with particular events, coupled with the inscriptions they carried, gave them a rhetorical, epideictic significance" (595-96). The difference between the classical herm and the medieval cathedral is textual. The herm served as a reminder—something to recall information already in one's mind—whereas the medieval cathedral with its muraled walls and statues was meant to be read and stored away as a text.

But the move to put memory into place came back to writing once again with the development of the written list cross-tabulated with horizontally-organized lists in the form of a table in the ninth century. Most notably, tables were used to organize and sort information, especially, given the time, information found in the Bible (Carruthers 118).

[3] Fredal describes the structure of Greek herms as: "partly aniconic, typically archaizing statue of Hermes consisting of a rectangular pillar topped with a stylized bust of Hermes, with a horizontal cutting at the shoulder to accommodate a cross-beam or bracket, and about midway down, an erect phallus and testicles" (594).

Twelfth century theologian Hugh of Saint Victor in particular makes use of building metaphors when he lays out the four Gospels in a table, "the numbers listed one after another vertically, and architectural columns are drawn to separate the four main vertical spaces on the page, together with arches and other architectural elements representing a classical facade" (118). The resulting table looks curiously like an arcade, which Carruthers notes "may derive from the ancient mnemonic advice to use buildings—including *intercolumnia*, the spaces between columns—as backgrounds for things to be remembered" (118) The places for memory are quite literally mapped out on the page and we see the first subordinations of the loci mnemonic to the written word. [See Figures 2.1 and 2.2].


Fig. 2.1 (left) and 2.2 (right)

The creation of tables displayed the architecture of memory quite literally with the design mirroring that of the classical arcade structure (right).

**The Renaissance**

With the introduction of the printing press in 1440 Europe and the mass production of the book (the effects of which will be discussed in depth shortly), came a rise in literacy. As Whitehead notes, when cultures became literate, they also began to discern between past and present (39). Carruthers too sees the shift of perception of time as important. The past, she writes, is viewed by the Renaissance consciousness "like other scientific subjects, objective status apart from present human memories" (239). Consequently Renaissance scholars who "worried that the past had been distorted through the mediation of the present, sought to recover or resuscitate the dead past itself" (239). This type of thinking—a critical examination of the past, a questioning of history—had little precedent.

The increased attention to history as written record and the de-emphasized role of memory as an art led to reorganizations of how knowledge was stored. While Sir Francis Bacon developed more scientific methods, still others dabbled in classical methods of memorization. In the following two sections I examine two separate veins of Renaissance memory—the scientific and the magical. First, I will focus on Bacon's view on memory as he later becomes a key figure in how libraries organize their collections. I then look at the lineage of mnemonists who built and developed memory theatres based on the classical house of memory structures.

**Francis Bacon and the science of memory**

Francis Bacon exemplified the ideal of the Renaissance Man having acted in court, as a religious philosopher, and later known—and perhaps still best known—for his contribution to science. His works bridge all three disciplines, with his most highly regarded scientific text being *Instauratio Magna,* which is credited with developing the scientific method. Less studied, but perhaps just as profound, is his impact on the history of memory, which he considered to be one of the three classifications of knowledge alongside reasoning and imagination:

> The images of those individuals—that is, the impressions which they make on the sense—fix themselves in the memory, and pass into it in the first instance entire as it were, just as they come. These the human mind proceeds to review and ruminate; and thereupon either simply rehearses them, or makes fanciful imitations of them, or analyses and classifies them. Wherefore from these three fountains, Memory, Imagination, and Reason, flow these three emanations, History, Poesy, and Philosophy; and there can be no others. For I consider history and experience to be the same thing, as also philosophy and the sciences. (Bacon, *Works* IV, 292-93)

Bacon follows an Aristotelian line of hierarchical organization when he discusses his inductive method of discovery in *Advancement of Learning* (Jardine 70). In Bacon's

method “primitive perceptions are recorded, sifted and tabulated under their most evident group, and then an eliminatory induction is carried out” (71). Bacon theorized the stages in the “interpretation of nature” correspond directly with the “natural function of the senses, memory and reason” (71). In such a method, the hierarchy occurs naturally, sorting the information and revealing the truth more clearly.

Bacon saw the natural method, and in turn, memory and reason, as the only way to understand the world. He denied any systems that were overlaid or imposed on the existing natural order—or to use Jardine’s words, “he explicitly rejects the belief that any dialectical, classificatory method can accurately reproduce the hierarchy of genera and species of nature” (71). She goes on to write that, for Bacon, “no method of presentation, no essentially mnemonic method can ensure such fidelity to nature” (71). In short, Bacon pushed against the classical hierarchy of artificial over natural memory. To be certain, this is more than mere word conflation; for Bacon memory was storage, a library of external stimuli. The stimuli are linked to singular instances, rather than generalized impressions which come with more numerous instances (90). A classification or generalized impression grew over time and with more singular instances of exposure.

Despite pushing against the artificial-over-natural memory structure instilled by the classical thinkers, it seems Bacon adhered to the use of loci mnemonics for the ability to recall. The Baconian model sounds very close to the house of memory described by Cicero and again by Quintilian, only Bacon uses the terms “prenotion” and “emblem” in place of rooms and images: “The art of memory is built upon two intentions; the one prenotion, the other emblem. Prenotion dischargeth the indefinite seeking that we would remember, and directeth us to seek in a narrow compass, that is, somewhat that hath congruity with our place of memory” (*Works* II, 2). Francis Yates notes how Bacon’s definition of place in relation to memory in *Novum Organum* “comes straight out of mnemonic text-books” (371).

The main revision to the loci mnemonic under Bacon’s model is the separation of memory and imagination. In classical models, the house of memory is a completely imagined place with surreal imagery meant to impress upon the mind. Imagination for Bacon came from the recapitulation of events as they were recalled (Jardine 91). Memory was not dependent on the artificial structure created by the imagination; instead the

imagination was the result of memory. Again, we might view this as the turn in Renaissance thinking of the past. Where Plato would construct the past and Aristotle would retrieve it, Bacon sought to organize it in such as way as to uncover greater scientific truths.

Bacon's use of memory for inductive reasoning for scientific pursuit turned the "principles of order and arrangement [...] into something like classification" (Yates 372). We will see librarians, including American public library patriarch, Melvil Dewey, directly cite Bacon's classifications as inspiration for their own systems of organization. The move to use Bacon as a framework could be seen as a legitimization of the burgeoning field of library science—a harkening back to Bacon the pioneering scientist. Or, as I investigate more heavily in chapter 4, one could see Bacon as another link in a long tradition that defines Western librarianship as an essentially white, classical age-driven pursuit of selective memory.

**Memory theatres and the magic of memory**

The Renaissance also marks the beginning of occult influences on the art of memory (Yates 129). Yates especially examines the architectural aspects of memory through the "memory theatre" constructed by Giulio Camillo in the 1530s. Camillo oscillated between France and Italy, depending on the funding he received for his projects (129-31). In a circumstance quite unusual for academic study, Camillo never produced a written work, nor was his theatre fully realized (130). But his vision, his popularity during his lifetime, illustrate the importance and staying power of loci mnemonic memory systems. Moreover, it demonstrates how a non-textual contribution can further the history of an institution like the library. Camillo as an author is nowhere to be found in the library, yet his work has tremendous influence on it.

By all accounts Camillo's memory was extraordinary, many describing it as "divine" (130). After his death, his contemporaries eulogized him as one of the greats, comparing him to Plato and Pythagoras (131). Yet, all we have are the records of his never-fully constructed memory theatre: A complex and detailed setup of seven divisions (with seven gates and seven pillars, and seven gangways), wherein all speeches could be memorized. The room, true to the classical tradition of background and foreground

imagery was composed of celestial and terrestrial symbols. Although modeled after the Roman Vitruvian theatre, Camillo's theatre is reversed so "there is no audience sitting in the seats" and "the solitary 'spectator' of the Theatre stands where the stage would be and looks towards the auditorium, gazing at the images" (137). Camillo's theatre was to be the ultimate loci mnemonic.

The scope of the theatre was huge, with each of the seven levels ascending into another stage of creation according to his own hybridized faith (the fourth level, for example, deals with the creation of man from the Bible and the three Gorgon Sisters—a move to show that in Cabalist faith, man has three souls) (140). To a certain extent, the Theatre also acted as a sort of library. Under the images in each division were boxes or drawers, "coffers of some kind containing masses of papers, and on these papers were speeches, based on the works of Cicero, relating to the subjects recalled by the images" (144). Yates notes the tremendous Hermetic influence on Camillo's design. The classical work, *Corpus Hermeticum*, believed to have been written by Hermes Trismegistrus, had been rediscovered and translated into Latin, contributing the occult nature of the project (145). The memory theatre is significant because it marks a turning point for memory. Classical influences abound in the structure, yet "the memory building is no longer a Gothic church or cathedral, the system is also Renaissance in its theory. The emotionally striking images of the classical memory, transformed by the devout Middle Ages into corporeal similitudes, are transformed again into magically powerful images" (157).

Because of Camillo's fame during his lifetime, other memory theatre designs—though less intricate—were undertaken by mnemonists. His influence spread to Giordano Bruno, whose work reinterpreted *Ad Herennium* in a more "mystifying form" (294). Although Bruno, like the classical mnemonists, utilized the architectural model, his work was considered "highly abnormal" for its "distribution of the memory rooms is involved with magical geometry and the system is worked from above by celestial mechanics" (295). Eventually, his work led to him being burned at the stake during the Inquisition (293).

Apparently undeterred by Bruno's fate, Campanella adopted a simplified form of the large-scale mnemonic for his work, *Citta del Sole*—a description of a utopian city whose religion is of the occult (297). The design at this point should be familiar—round,

concentric with a relationship between the cosmos and the objects below (297-98). Campanella himself, "repeatedly stated that his City of the Sun, or perhaps some model of it, could be used for 'local memory', as a very quick way of knowing everything 'using the world as a book'" (298). The written work of Bruno in turn influenced the memory theatre of the English Renaissance thinker, Robert Fludd.

Fludd, like Camillo before him, was a Hermetic Cabalist[4] (320). Coming at the end of the sixteenth century, Fludd "erects what is probably the last great monument of Renaissance memory" (321). At the dawn of the Enlightenment, Fludd's Hermetic-Cabalist outlook reflected in his works, earned him a reputation as a magician (323). His work relied heavily on imagery, which was not well-suited for English print shops (who wanted to charge him exorbitantly for the print of his drawings), leading him to publish overseas (324). The memory theatre illustrated by Fludd hewed closely to that described by Camillo and influenced heavily by Bruno—a cosmic firmament, use of talismans amongst larger divisions; though instead of levels, Fludd used memory rooms (329-30; 335-36). As Yates noted, Fludd's theatre was the Renaissance's last mark of memory as an art. Mnemonists who practiced the outdated art of memory were disregarded as dealing with the occult.

**Forgetting**

With the development of the page as the flat memory device, memory began to lose its status amongst the rhetorical canons. Throughout the Renaissance, as writing became more commonplace, memory becomes less important, until it is all but erased from the canons. Speech teachers still taught it as a necessary skill through the mid-twentieth century—a reflection of Aristotle's mere memory. (Sometimes memory is lumped together—or placed with—the other, "lesser" canon of delivery.) I hesitate to say that memory was forgotten or deleted; neither of those terms fits with the location-based vocabulary of *memoria*. Instead, I want to find out how *memoria* was *replaced,* where it moved to and why. Here I will offer two brief explanations—the technological and the Cartesian.

[4] The Hermetic Cabalist tradition was a form of religious mysticism that combined Hebrew creation myths with Pythagoreanism and numerology (Yates 86).

**Technological forgetting**

The technological explanation points to material developments in memorization as the downfall of *memoria*. The writing on the wall had been there for a while, so to speak. In her work, Mary Carruthers notes how medieval culture seems to make no distinction "between writing on the memory and writing on some other surface" (30). Whitehead likewise notes that "writing was put at the service of memory and itself conceived as a form or process of memorization" (40). Of course the invention of written text gained momentum as technology improved and the materials of writing proved easier to access (wax tablets gave way to papyrus and parchment, which eventually turned into paper). The three dimensional house of memory "was transformed by medieval scholars into a flat surface or area divided by a grid system" (Whitehead 42). This, of course, changed the perspective of the memorizer from that of an ambulatory creator to that of a static observer. This is not to say that spatial memory structures ceased to be made; they were merely subordinated into other formats much like Hugh of St. Victor subordinated the house of memory into a table.

The table took on more significance in the Renaissance with the development of astronomy as a science. Information collected over many years could be displayed in a single format that also allowed for synthesis with other tables (Eisenstein 251-53). The development of "activities such as compiling tables of functions or developing logarithms and slide rules also involved the production of useful tools and at the same time spurred new creative acts" (270). As simple as it seems, the table proved to be an ingenious tool, saving on the intellectual labor needed to synthesize data (270). By the seventeenth century the practice of checking "two conflicting tables against the writing in the skies, was becoming commonplace" (253), thereby "doubl[ing] the life of the astronomer" by again saving on the needed intellectual labor (270). But the invention of the table and its implementation in educational settings meant the further displacement of *memoria* as "less reliance on memory work and rote repetition in lecture halls also brought new mental talents into play" (270).

But the three-dimensional loci mnemonic was not completely lost in the age of science. The importance of performative memory persisted. Yates makes a fascinating

case for the memory theatres of Camillo and Fludd as influencing the design of performance venues like Shakespeare's rebuilt Globe Theatre in 1613 (342-45). The first Globe theatre—the one in which most of Shakespeare's works had been performed during the Bard's lifetime—was originally built in 1599 (342; 349). Yates details the layout of the second Globe, noting the number of entrances (five) as well as the arrangement of the tiers and their supporting columns (346-47). Of particular interest is the underside of the theatre's ceiling, decorated, much like the theatres of Camillo and Fludd, with celestial symbols (347). In such a structure, the performers could memorize the lines to be delivered by following the mnemonics first set out by the Greeks in the classical age. Memory in the late Renaissance and Elizabethan eras was not yet forgotten, but placed into venues like the Globe, where speech was paramount.

While orality dominated the theatre (a trend it could be argued that ended with Shakespeare's plays being taught as printed text in the nineteenth and twentieth century school), the focus of literacy instruction shifted toward writing. As previously mentioned, the mid-nineteenth century American university focused the importance of speech with diminished emphasis in the latter half of the century. In *Orality and Literacy*, Walter Ong makes the case that "technologies are not mere exterior aids but also interior transformations of consciousness" (82). The development and default status of writing as a form of reminding and archiving fundamentally changed the way people went about creating, storing, and retrieving memories. Developing a method of memorization as complex and as artful as the loci mnemonic became less necessary outside the speech discipline when such thoughts could be written down in a fraction of the time. With the further inventions of the printing press and mass production of the codex, memory found its way to the bookshelf.

In *The Printing Revolution in Early Modern Europe*, Elizabeth Eisenstein decries the undertheorized effects of the printing press (5). Different fields pay passing mind to the invention of the printed word, but no one has looked at the printing press as a force that simultaneously promotes culture and counterculture, orthodoxy and heterodoxy (5). Eisenstein spends much of the introduction and first chapter dispelling myths of printing—namely that print saved written work from extinction. The emphasis of the memory process also shifted with the manuscripts given to the printer needing "to be

reviewed in a new way—one which encouraged more editing, correcting, and collating than had the hand-copied text" (24). Notions of audience had also shifted from a single scholar to a wider, albeit still modest, readership.

Scribal culture—the process of copying a book by hand—assumed a small audience, perhaps even just the scribe who learned the text by copying it. The printed book has the ability to reach considerably more people. The printed text thus moves "away from fidelity to scribal conventions and toward serving the convenience of the reader" (24). The book itself had migrated away from a memory device for its author into the territory of delivery to an unseen audience. The progression of collective memory then "was transmitted first by word of mouth and then by writing, without paying attention to the incapability of scribal culture to make detailed records 'public'" (221). Print came to organize the thoughts of the readers en masse while deleting the methods of memorization present in scribal culture.

Throughout this dissertation I return to the work of Eisenstein. Where she notes how "editorial decisions made by early printers with regard to layout and presentation probably helped to reorganize the thinking of the readers" (70), I note how the layout and design of the library reoriented the thinking of its patrons.

**The speech divide**

According to John Fredrick Reynolds' narrative of language evolution, the western world's shift from orality to literacy—and the discipline of speech moving away from artificial memory systems in favor of written systems—further contributed to the subordination of *memoria* as a canon (245). He notes that in speech studies, memory has been excluded and delivery has been given short shrift (3). In short, memory was grouped in with the other, more recognized canon of *inventio*—a move that makes sense given the canons interrelatedness since the Greeks use of loci mnemonics as artful memory formation rather than mere remembering. Memory itself was recognized largely as a relic of speechifying in an age of written communication. Speech as a discipline became a lesser part of the English department, signaling the beginning of a focus on written language, including Shakespeare's plays.

In this section I provide a brief history of the relationship between the Speech and English departments. Examining their relationship helps address the loss of memory in modern rhetorical studies. As Speech became less important to English, memory lost status. At the turn of the twentieth century, library patriarch Melvil Dewey "championed the value of books and the printed word over lectures more than once, regarding the art of writing as 'a step higher' than the gift of speech" (Frohmann 356). Dewey seized the shift away from speech to further the burgeoning field of librarianship, stating that the future lay in print, not orality. He delineates the progression as follows: "To communicate our ideas we use voice; to send them farther than the voice will reach or to preserve them for future reference, we write; to multiply them so that we may speak to many people in different places at the same time, we print" (100). For Dewey and his contemporaries, whose careers began before the invention of radio, voice simply could not reach the masses.

The university discipline of speech has its own history that Herman Cohen describes as "murky, if not obscured" (ix). In the introduction of his tome on the history of speech Cohen decries the lack of attention Speech Communications (and later simply Communications) pays to its own history. Speech, in large part, grew out of the elocution movement found in eighteenth Britain and France (1). Like many of the disciplines coming out of the Enlightenment, Elocution sought to apply the principles of the scientific method—observation and an establishment of rules and laws. The Elocutionists studied the body as well as the words being said, with special care to "examine the physical movements, gestures, postures, and vocal characteristics" of the orators (1). The scientific approach to elocution made it a popular discipline the United States (12). The focus in Elocution, however, was steadfastly on recitation, not creating original arguments (12). To use Plato's terminology, it was "mere memory." Still, the ability to use mere memory was equated with intelligence and memorization was considered (and maybe still is considered) a mark of a developed mind.

The proliferation of universities in the United States came as a response to the increased enrollment of veterans post Civil War (13). In serving this new population, colleges had to teach "college students to write and speak their native tongues" (13). Textbooks provided instruction for both the teacher and the student with "most of the

text-books [paying] at least passing attention to oral discourse, and many of them devoted substantial space to speech" (27-28). Meanwhile the field of Composition studies made no clear distinction between the arts of writing and speaking, yet "the teachers of elocution were not well treated" in Composition texts (28). Compositionists saw themselves concerned with more substantive communication— "logical thinking, clear use of language, cogent organization, and purposeful discourse" (28). The elocutionists were cast as a trivial lot "who stressed all that was offensive to rational discourse" (28). With the scholars of the written word cast as somehow superior to those concerned with the triviality of elocution, the divide between oral culture and written culture continued to grow. Consequently, memory as the main tenant of speech, also became increasingly marginalized within the English department.

Rumblings of discontent in Public Speaking—the disciplinary cousin of Elocution—could be heard in 1910 at the Eastern Public Speaking Conference when its attendees advocated for a college entrance requirement in oral English (29). They also established their own journals although the contributors were not well refereed and the subscription rate was low (30). Still for the teachers of speech, the primary organization for membership was the National Council of Teachers of English (NCTE), which contained a section devoted solely to Oral English (31). The 1913 NCTE conference in Chicago led to an informal gathering of teachers related to the oral disciplines. Talk of separation escalated into a survey that broached the subject of secession from the English department and the formation of their own association. After several contentious votes, a "new association was in fact founded by a dissident group of 17 members of the N.C.T.E." (32).

In 1914, Speech formally broke from the English department (Philpsen 352). On its own, Speech gained status in the university from 1928 to 1946 with several journals focusing on the discipline or privileging it over its counterparts in fields such as Speech Education (352). Within the university, however, Public Speaking was recognized as woefully ill-equipped to perform research "because of its history" (Cohen 36). Consequently the methods of research tended to look outside of speech and emulate the sorts of research conducted by other disciplines (38). This derivative approach led to greater incorporation of the social sciences and its legitimization (84). Over time art of

memory was superseded by a research-driven model of communication. The introduction of mass communication technologies like television further supplanted traditional rhetorical instruction of oratory.

By 1970, "communication" had replaced "speech" as the new master term for the discipline, only to be made official by the Speech Communication Association formally changing its name to the National Communication Association in 1998 (353). Although memory had largely been forgotten within communication studies by the 1990s, vestiges of its legacy are still evident. A 1996 speech given by then-SCA-president, Sharon Ratliffe uses architecture and the network-as-web as controlling metaphors for the speech communication field (6-7). She explicitly calls the work of SCA members that of architects—"creating a form uniquely appropriate for the exercise of a specific set of functions" (6). Technology has undeniably changed how speech operates; however place remains central to how it operates as a system.

**Cartesian forgetting**

The Cartesian explanation examines the movement of the mind-body dualism popularized by Rene Descartes. Following the same hierarchical model of memory initially laid out by Plato that placed the art of memory over writing, the Cartesian thinking valued the mind over the body. Or rather it valued the work of the mind over that of the body. It is no mistake that the technological coincides with the dualism presented by Cartesian thinkers. Written text, in the Cartesian view, comes from the mind and seems to divorce itself from the body of the writer. With the ability to write down thoughts, methods such as arranging mental spaces into units of five so one could keep track on his fingers seemed not just unnecessary, but arguably inadequate for more the complex thinking that developed out of the Renaissance and Enlightenment.

Jay David Bolter describes the Cartesian ego using verbiage aligning very much with Quintilian's movement through the house of memory:

> Memory and reason become a special and indeed privileged form of writing. The memory becomes a writing space, and the writer a homonuculus who looks out at the world through our eyes and records

> what he sees. The homonuculus translates perceptions into words and images and records them; he also puts down his inner thoughts and conclusion. To think is to write in the language of thought and to remember is to search the space of our memory until we find what was written there. (193-94)

Bolter goes on to write that the "Cartesian philosophy provides a philosophical foundation for the classic age of printing, in which the author indeed both validates and is validated by the texts he publishes" (195-96). Again, it is the technology of print—its ability to reach audiences beyond those who can physically hear a rhetor—that gives the Cartesian philosophy its status.

The production of the codex and its ability to travel made print text a commodity (more on that in later chapters) English scholars could easily use in the university without mention of the author. Kathleen Welch contends that the use of the book in the university presents an unconscious theory, one that truncates the rhetorical canon by deleting memory and delivery thereby permanently privileging print text over traditions based around the body like orality (269-70). Textbooks, Welch says, are to blame. The use of textbooks, she writes, "act as persuasive *places* where new teachers of writing are trained and where experienced ones reinforce the training" (271, emphasis mine).

The idea of place in the Cartesian philosophy is also essential to understanding not just the loss of memory, but also how the use of mnemonics continued to define place without being explicitly tied to memory. In her work on the legalities of space and cyberspace, Julie Cohen notes, "Formal or Cartesian space encompasses geographic/mapped places but is broader; it represents both totality and infinity" (231). The Cartesian conception of space is abstract, privileging the concept over the physical manifestation. This is, in part due to the distrust of sensual, embodied perception imbued through the Cartesian mode of thinking. Cohen goes on to note that "experientially, 'place' is much more fluid. Places emerge as a function of experience and 'imageability'; they are not identified as such a *priori*, but emerge from practice" (231). In terms of the Cartesian memory structure, mnemonics served to create spaces, not recall them; for no

such places existed outside of perception. Memory was viewed as a slippery thing, fallible and incomplete because of its place-based roots.

**Vital materiality and assemblage**

The Cartesian focus on the products of the mind—words divorced from the orator—speaks to a certain type of power. The words without direct connection to the speaker become universalized and the body behind the words is erased. Textbooks, which Welch blames for the loss of *memoria*, are taught by professors—a privileged class throughout most of Western culture. When the text is devoid of the author's body and it is only their thoughts, it becomes easier to see them through the filter of the person teaching the text. In a later book, *Electrifying Classical Rhetoric*, Welch connects her work and Ong's to re-examine the work of Gorgias, Plato, and Isocrates in light of modern technologies like motion pictures ushering in an age of secondary orality. The voice along with intonation and gesturing—those non-textual elements of communication—are able to be captured and disseminated. Again, the technology changes the way we communicate by giving status to orality. Under Welch's model, *memoria* is not reinstated as a canon in its own right; instead the technology of secondary orality ties directly to the other neglected canon of delivery. Memory is only further subordinated as celluloid (at the time of Welch's writing) and mp4s (at the time of this writing) are viewed as a form of mnemonic—a way to remember, but not an accurate representation of "truth."

The book has rhetorical power and agency in itself—a power that is recognized and co-opted by human agents and institutions. Resistance to the dominance of the book or "any attempt to change writing textbooks and the unspoken ideology that produces them will have to take account of this 2500 year old tradition of technical rhetoric" (279). Recognizing the power and agency of the physical technology itself—whether it is celluloid, digital, or paper—is what Jane Bennett calls "vital materiality" (14). In stark contrast to the Cartesian model where Decartes famously declared "I think therefore I am" (pt. IV, np), the concept of vital materiality acknowledges the shared nature of matter, supposing that "if matter itself is lively, then not only is the difference between subjects and objects minimized, but the status of the shared materiality of all things is

elevated. All bodies become more than mere objects" (13). Indeed, the acts of forgetting I describe with both the Cartesian and technological histories demonstrates a hierarchizing of the mind over the body (Cartesian philosophy) or the subordination of memory in material conditions (the technological). Using Bennett's notion of vital materiality "no mode is an agent in the hierarchical sense" (22). The gathering and interacting of these subjects and objects—these agents—is what she terms an assemblage (20-24).

The idea of the human-object relationship as an assemblage has a history of its own. In their essay, "Plagiarism, Originality, Assemblage," Johndan Johnson-Eilola and Stuart Selber define assemblages as "texts built primarily and explicitly from existing texts in order to solve a writing or communication problem in a new context" (381). This broader definition takes into account the history of how texts are actually made—the human interaction and materials necessary, the lines of production and networks of distribution needed to have a text read. The assemblage they note "is itself constructed from the conceptual, linguistic, and sociopolitical forces active in several different locations" (381). The objects themselves have an existence with as much agency as their human counterparts. The assemblages of these agents under Bennett's definition "are living, throbbing confederations that are able to function despite the persistent presence of energies that confound them from within" (24).

And libraries, on the most basic level, as assemblages of books, classification systems, shelving, and bricks and mortar, with the purpose of constructing memory, have a life of their own with many thinkers, as we shall see, playing a role to help shape them. Though I highlight many of the human agents who play a central role in the creation of library systems, they should be seen as working within an assemblage "not governed by any central head" (24). I, like Bennett, eschew the idea that "one materiality or type of material has sufficient competence to determine consistently the trajectory or impact of the group" (24). History, as a form of memory, is a network of agents—both human and non-human— interacting with each other. The vital materialist, Bennett writes, will recognize "that culture is *not* of our own making" (115). Yet, the body, the human agent, remains a central to formation of memory. My point is not to privilege the body over technology, nor is it to make subordinate to technology. My goal is to see the ways in

which the human body connects to the materials of technology and in turn becomes a material of technological memory.

**Memory as an expanded canon**

As we saw at the start of chapter 1, recent years have called for the recovery of neglected aspects in the rhetorical canon. James Porter has since written about the recovery of delivery in his article, "Recovering Delivery for Digital Rhetoric." As with memory, technology changed the interiority of thought to enhance life. Porter aligns with the Ongian view when he writes "the technological shift from scribal to print culture was not a mere technical or instrumental shift from one form of delivering knowledge to another. The new form of delivery changed knowledge itself" (4). But delivering is only part of the equation; memory has to come first. To oversimplify the point: without a memory of some sort, there is nothing to deliver. Citing Welch, Porter writes how "Erasing or diminishing the role of memory, for example, is a way of devaluing the contributions of cultures that honor ancestral knowledge and see it as wisdom to be preserved, carried forward, honored, and learned in a deep way" (6). As part of his recovery efforts, Porter asks the reader to (re)consider the body as a form of delivery (8-11). I focus on this particular article because it highlights two important strands of recovering memory—the digital and the the embodied. As Porter demonstrates, the two are often linked.[5]

Once again Julie Cohen's analysis of how we think of the abstract in terms of metaphor demonstrates how the physical, visceral world can become muddled in the digital: "we implicitly characterize ideas as containers (which hold water or do not) and arguments as buildings (which have foundations) or journeys (which have starting and ending points). Thus, embodied perception supplies the ready-to-hand models of concreteness that render abstractions intelligible" (228). The work of Jason Kalin likewise examines the digital networks of memory "as metaphors for lived memory [that] reconfigure lived memory. That is, the materiality of digital media technologies and their

[5] The word root for "digital" (digitus in Latin, digit in English) is of course derived from the body. In the fourteenth century "digit" simply meant "less than ten"—a direct connection to the Golden Hand mnemonic set out in *Ad Herennium* and perpetuated in the middle ages.

corresponding sociotechnical practices become the modes through which memory finds recourse in the present" (88-89).

In the next two subsections I examine the body and the digital as forms of materiality that make us rethink the metaphors of memory established by the classical canon of *memoria* (like the house of memory). In a third subsection I look at how scholars combine the embodied with the digital and how this informs my work here.

**Embodied memory**

Cohen reminds us that "The embodied, situated basis of cognition also shapes our language" (228). Carole Blair prefaces her work on the rhetoric of *memoria*l sites, by noting the use of bodily metaphors used in rhetoric. Rhetors, she writes "take 'stances.' They 'pose,' 'posture,'or 'hold' on to an idea" (16). Similarly, the "audience members assume a 'position,' 'feel' a particular emotion, 'grasp' an idea, or 'see' a point" (16). These are of course not new terms to rhetoric; they have been in use for many centuries. What Blair and other rhetoricians concerned with embodied rhetoric do is recover—or perhaps redress—the body as an important rhetorical tool, one that "acts on the whole person—body as well as mind—and often on the person situated in a community of other persons" (46). Even one of the most basic terms in this dissertation, the word "remember," is seen by Bradford Vivian as inherently about the body and the places it occupies. The memory of the public or the collective "encompasses a mnemonic landscape comprised not of stability but ongoing redistribution or, better still, *re-membering*" (190). The example Vivian provides explains how Romani people as a social group gain and lose member—or, re-member—yet carry on *memoria*l traditions. The attention to the body then is not a way of limiting a viewpoint, but rather of making the experience more universal as if it is experienced by more than the rhetor. The same could be said for embodied memory: By relating the memory to the body, others might "feel" or "see" it through the eyes of the rhetor.

In the edited collection, *Research as a Lived Process,* cultural rhetoricians Victor Villanueva and Malea Powell each have a chapter that offers personal perspectives into the lives of specific individual rhetors from their own ethnic heritages. Villanueva recalls his childhood and the serendipity leading him to study the Cuban political figure of Pedro

Campos, an essay told from a deeply personal perspective. In a separate chapter, "Dreaming Charles Eastman," Powell connects her experience working in the American Indian archives. She notes the the strangeness of making meaning on paper and calls for the reader to read the essay aloud (115). The would-be oration as she sets it up acts a series of scenes, each arising "from the physical space of an archive, a location of deliberate institutional cataloging of memory" (115-16).

In both pieces, the identity of the author, their ethnic heritages, are front and center. Issues of identity and the body remain foremost in the pieces. Moreover, in Villanueva's article, he makes it a point to recall the physical strife of Campos, directly relating the practice of rhetoric to the body. Like Frederick Douglass and Pedro Campos and so many forgotten rhetors of color, sometimes memories are writ upon the body as scars and brands, instilled by numbers tattooed on a forearm.

Recognizing the rhetor as a flesh-and-blood human behind the text is important as Powell demonstrates with Charles Eastman and Villanueva with Campos. But there is another vein of embodied rhetoric that utilizes the genealogical methodology I described in chapter 1. Christine De Vinne reexamines the events of the ill-fated Donner Party of 1846 as "transgressions enacted on the bodies of the dead, embedded in the memories of the living, inscribed in material texts, and reincarnate in the national imagination" (76). She describes her approach to the research as two-fold: First she examines the conditions of Donner Party's struggle and the national attitudes and curiosities surrounding such a macabre event. She then looks at two different accounts of the expedition published thirty years apart (76-77). The results, De Vinne writes, "not only access intriguing narrative sources but also illuminate key issues of materiality"—ones that directly affect the body and its representations (77).

The sort of recovery used by De Vinne takes the classical forms of embodied memory a step farther. Where *Ad Herennium* advises the orator to divide argumental structures into fives so as to be easily counted on the fingers, the embodied rhetor would highlight a more visceral image—one that might stick out to the reader. In De Vinne's case, she quotes a primary text that recalls "kettles of blood" and the taste of brain soup (84). Where Quintilian added ambulatory movement through the house of memories so the audience might see what the orator wanted them to see, primary historical documents

bring events to life. The voices, when describing "the unutterable repugnance with which I tasted the first mouthful of flesh," seem to emanate from beyond the grave. The memories here are personal, but at the same time, felt by many.

**Digital *memoria***

Digital memory covers many of the same areas of classical and embodied memory—including issues of place/space and the connection to the body. In considering the nuances of legalese associated with cyberspace, Julie Cohen asks, "How can an assemblage of cables, routers, and servers be 'a space'?" (227). Wendy Chun seems to answer this question in her own work when concerns herself with the hardware of technology. She likens the assemblage of cables and routers to the human body: "Fiber-optic networks comprise a synthesis of biology and machine technology; they assume the 'stuff' of the human mind can be stored, and they dream of immortality through the separation of body from memory" (299). These dreams of immortality, of divorcing the memory from the body, are reminiscent of the classical forms of orality—the passing down of narratives from one person to the next. The digital age has its own equivalents. Lev Manovich calls the computer database "a new metaphor that we use to conceptualize individual and collective cultural memory, a collection of documents or objects, and other phenomena and experiences" (214). The "unprecedented amount of media materials" produced in the last 150 years, Manovich argues, has led to "the need for new technologies to store, organize, and efficiently access these materials" (35). A house of memories and counting on fingers, the reliance on orality alone, do not suffice in the technological society.

In his 2007 article, "Metadata and Memory," Stuart Whittemore traces his interest in content management systems as a form of memory to the Quintilianic and Ciceronian traditions of *memoria* (95). Whittemore, noting his relationship to classical scholars, uses the language of space and place to describe his interest in memory studies as he writes that "CMS systems would seem to offer the perfect means of externalizing these visual-spatial representations into graphical form, enabling writers to store, retrieve, and utilize data with relative ease" (98). In fact, the fight between three dimensional space and two-dimensional representation, the binary of interiorized and exteriorized knowledge all

seem to be present in his study of digital memory. Whittemore defines himself on one side of a boundary when he says he is more concerned with the act of tactical retrieval of data rather than the creation and storage of it (95). Part of *memoria*'s long tradition, it appears, is to continue the Aristotelian notion of categorization—of dividing out groups of users and creators, of seeing the act of recalling memory as separate from creating it. I connect this tradition of division and hierarchy to that of the library—an institution that historically reinforces cultural memory on its users. In the later chapters of this dissertation I examine how the divide between the user and the system is bridged through counter systems. I also explore how newer systems of memory invite participants to actively contribute and shape the collection.

In his later work, *Rhetorical Memory*, Whittemore continues to examine Aristotelian forms of rhetoric and memory of organizational memory in workplace settings (39-46). Despite the subject of his study being broadly defined as organizations, he takes great care to draw out the role of the individual. He resists the technologic-centric view of memory by stating that "computers and other devices may indeed be more technologically sophisticated, faster, more efficient, and so on, but working a keyboard is still, at the bottom, writing" (28). The definition of writing is one I take up in his dissertation, one that includes "the built environments that surround us—our buildings, our workspaces, and our digital spaces, [...] our infrastructures and tools" (37). Whittemore then explains how "these infrastructures aid memory by organizing and in many cases limiting what we can cannot perceive and interact with in a given situation" (37). True to his previous work which foregrounded the idea of human-computer interaction, the larger systems described in *Rhetorical Memory* acknowledge that on some level an individual is accessing the system. The individual, when interacting with the system can "best retain information preceived via multiple senses" (156). Though the mind—the storage and organization of materials—may indeed be divorced from the body, the body remains the site of synthesis, the place for understanding, the essential "stuff" of memory.

In the coming chapters I outline the creation of library system as a collection of texts. Each text in the traditional, Cartesian sense is a collection of disembodied thoughts. What has been lost to library studies is the body of the user as a site of memory.

Rhetorical studies, as I have mentioned, has recovered the body and the personhood of rhetors like Aspasia; however, this method has not been applied to library studies. After examining the history of the institution at large, I focus on counter systems—the sorts of memory structures that many times return to the body and the individual as the place of memory.

## Chapter 3

## History of Libraries in the West: From Alexandria to the Enlightenment

The Western conception of the library as a memory system has its roots in the Classical era with Aristotle's Lyceum. This chapter tells of the Western library's origin in Greece and the first major established library in Alexandria. In recounting this history I want to fully establish the library as not just a center for literacy or collecting, but as an institution whose practices can be likened to culture warfare, replete with the ability to erase some memories from existence while instantiating other memories. The book collecting practices and aims of the Alexandrian library, I argue formed a commodity exchange and economy that turned the book into a sacred object. That idea is still present in today's book industry and public library structure.

This early history of the library demonstrates how closely the canon of *memoria* is related to the memory systems of the library. Like the history of *memoria* outlined in chapter 2, the history of the library is traced through the Middle Ages, where it faces similar decline. Toward the end of the chapter, I outline how the invention of the printing press coupled with the Enlightenment accelerated the growth of book collections and reified many of the structures that originated hundreds of years before in Alexandria.

### The Great Library of Alexandria

Little is known about the Great Library of Alexandria. Only slightly more is known about its counterpart, The Museum. As Classical history scholar, Andrew Erskine, notes, "In spite of the famous intellectuals who worked in Alexandria, men such as Euclid, Callimachus, and Eratosthenes, the evidence for the Museum and Library is very poor" (38). Indeed, the exact time frame of their existence and their exact layout are more myth and conjecture than documented fact. The destruction of the Library in 48 BCE by Julius Caesar and again, centuries later by Omar only deepen the mystique and fascination with the institution.

No one knows the exact layout or organization of the library—a piece of information that would prove most valuable in understanding the early formations of the library. We do know from the explicit testimony of Strabo, a geographer, historian, and

contemporary of Augustus, that the Great Library "was modelled on Aristotle's own private library"—the Lyceum (Erskine 39-40; Berti Costa 6). This, of course, is not a direct influence; too many years and hundreds of miles separate Aristotle and the Great Library of Alexandria. The connection between the Ptolemies and Aristotle comes from Aristotle's successors, the Peripatetic School. From this school, came Demetrius of Phalerum, the failed tyrant of Athens who fled to Cassander after his ousting. Ptolemy installed Demetrius as the part of his regime in the days following Alexander the Great's death. Initially Demetrius was installed as the head of Ptolemy's book-buying program before vying for a more powerful position as the organizer and head librarian of the Great Library (Erskine 40).

Another connection between Aristotle and the Great Library comes directly from his texts. Upon his death, Aristotle had one of the largest collections of written work in the Western world. The books were left to his successor, Theophratus of Lesbos, who turned the Lyceum into a formal teaching institution, complete with classrooms and lecture halls (Harris 40). The books were then handed down to Theophratus' nephew, Neleus, an unsuccessful teacher who left the school and took the texts with him. His descendants were illiterate, but still aware enough to know the value of the books, buried the manuscripts to keep them out of the clutches of the Attalid empire, who was building a library of its own. The texts were later exhumed and were either stolen or bought by Ptolemy II (41). In either case, the actual texts once belonging to Aristotle (and possibly even Plato) were likely housed in Alexandria.

The lineage involved with the formation of the Great Library when coupled with the surrounding information of Alexandria provides us with some insight. Simon Garfield notes the geographical location of Alexandria as especially important. The city itself was surrounded by water with the Great Harbor to the north—home to another impressive structure, the Pharos Lighthouse (24-25). Trade by sea was common and the synthesis of cultures and ideas led to not only the formation of a bricolage of culture, but also a confluence of information in written form. It is no coincidence that the greatest of world powers at the time would make the creation of a library paramount to its quest for glory.

For library historian Michael Harris, it only seems natural that the Great Library of Alexandria took root. In the first chapter of his book, *History of Libraries in the*

*Western World*, he describes the various social, economic, and political conditions needed to form a library in the Classical era. The social conditions, Harris says, are an interrelation of urban growth, commerce, and education, and the need to store the records associated with such institutions (4). Garfield describes Alexandria's geography as orderly, heavily populated, and organized by infrastructures such as seaways and thoroughfares and roadways (24). Creating such an infrastructure is costly. Economic conditions require a surplus of wealth. But large wealth also requires "a sophisticated record-keeping system" (Harris 4). The library under these economic conditions becomes the de facto repository of financial records in addition to the aforementioned educational and governmental documents. Naturally, the social and economic conditions have much to do with the political climate. As Harris says, "libraries are far more likely to develop rapidly and strongly when the governing generally requires access to great amounts of domestic and foreign information" (5). Certainly, Alexandria as the premier city in the world, would need such a space.

Underlying these conditions is a struggle for power. The library in the Hellenistic age had evolved from the Classical organized collection of texts such as Aristotle's Lyceum into a symbol of imperialism. The collection of texts displayed one's wealth and superiority. Scholars came from far and wide to study at the Great Library in the world-renowned city of Alexandria (Harris 45; Berti Costa 4). When Demetrius was granted asylum in Alexandria by Ptolemy I, he immediately enacted a scheme to model the fledgling city after Athens (Delia 1449). In the age of empire building, the modelling was not a simple form of imitation or simple pride (as one might interpret the modern Alexandrian Library). Rather, the replication and growth of libraries was a form of warfare. Given the scarcity and value of books, the social, economic, and political conditions under which a library was formed were often imbued with violence.

One has to keep in mind that Alexandria as part of the Hellenistic Age was essentially a Greek settlement in Egypt. The development of the Great Library was as much about the storage and accessibility of records as it was about cultural imperialism. The library's link is not to the land of Egypt, but survives in a tradition of the Greek culture. The establishment of the Museum and the Library in the heart of the city developed a continuity and Greekness of Alexandria (Erskine 42). The Greekness

developed in Alexandria by institutions of power had less to do with simple cultural pride and more to do with subjugating other cultures. Andrew Erskine notes how the overarching Greek culture othered Macedonians (ironic since Aristotle—that pillar of the Library—was Macedonian). More pointedly, "the presence in Alexandria of two institutions [the Library and the Museum] devoted to the preservation and study of Greek culture acts as a powerful symbol of Egyptian exclusion and subjection" (43). In other words, the creation of the Library is an early case of colonization.

But the violence of imperialism was not contained to the soils of Greece and Egypt. The creation of the Library collection was itself a cutthroat endeavor used to stoke the jealousies of rival empires like the growing collection at the Library of Pergamum (Bivens-Tatum 144). The stated goal of the Great Library of Alexandria was to simply collect all the written works in the world (142). Early efforts to collect all the texts in the world consisted of purchasing campaigns (145). When buying didn't work—or when the price proved too high—the books were forcibly taken. Ships docked in the harbor of Alexandria were searched and their written works confiscated, copied, and then the copies were returned with the original document retained by the Library (145; Delia 1457; Harris 44). Ptolemy III, in keeping with his predecessors' goals of a universal collection, refused to supply a famine-stricken Athens with grain unless he would be allowed to borrow the master copies of Euripedean, Sopheclean, and Aeschylean dramas. He deposited 15 talents as a security deposit and shipped the grain. Then, as he had with moored ships, he only returned the copies. The talents were forfeited and the originals joined the Library collection (Harris 145; Delia 1457).

The warfare was also economic. Again, the geography of Alexandria mattered a great deal as Egypt was, at the time, the main supplier of papyrus. The papyrus plant was indigenous to Egypt, growing along the Nile River. The pith of the plant was cut into strips which were then laid out in perpendicular rows and pressed and dried. The process took hundreds of hours, not including the time it would take to quill the words onto the dried surface. The result was a scroll of about twenty feet in length by eighteen inches wide that was extremely valuable (Harris 143). Since most of the written word at the time was being committed to papyrus, the Ptolemies cut off the supply to their rivals, chiefly the Attalids who, as mentioned earlier, were building a library of their own in Pergamum

(Erskine 46). The quest to have the biggest, best, most comprehensive library was not stymied; the Pergamene Library began using animal skins instead of papyrus (46). At the same time, the text-buying market expanded with lesser-known works by famous authors now in demand and every library trying to acquire something another library had failed to collect (46).

And lives were at stake. Aristophanes of Byzantium, known for his expertise in the Great Library's collection, was nearly poached by the Attalids. Upon finding out about the scheme, the librarian was imprisoned in Alexandria for the rest of his life (46).

The Library collection was built, as Delia says, "by means of confiscation, copying, and the production of new works and translations" (1457). At its height, the Great Library is said to have contained anywhere from 400,000-700,000 scrolls (Erskine 40; Harris 45; Delia 1459). This number may be somewhat misleading since a scroll is about one tenth the amount of text in a modern book (Harris 45). Still, the feat is impressive and overshadowed other attempts at universal libraries. The Library at Pergamum, for example, is said to have contained about 200,000 scrolls (Bivens-Tatum 144).

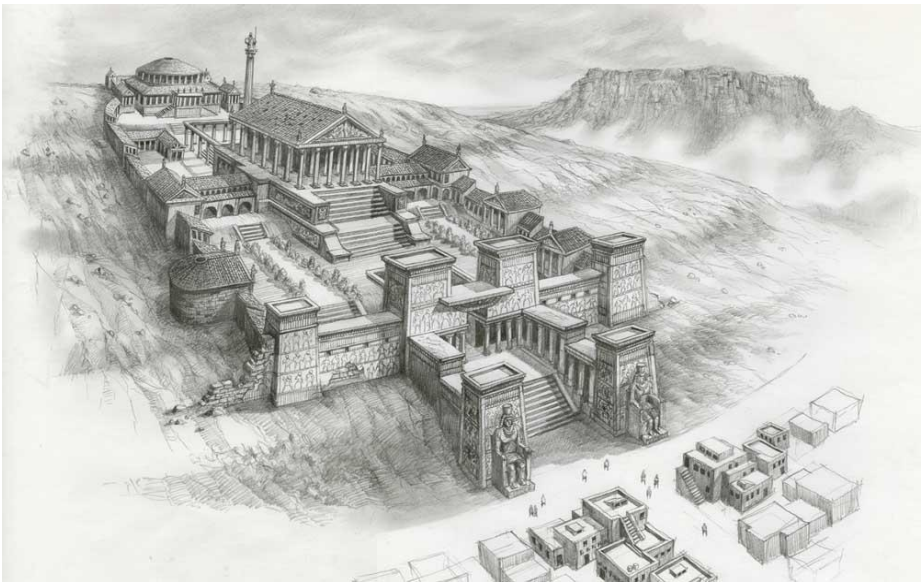


Figure 3.1

A speculative lithograph of the Great Library of Alexandria from HBE Publishing "An Extensive & Abridged History of Publishing" hbepublishing.com/history/; Web. Dec. 28, 2015.

Like so many other symbols of power that fell with their empire, the Great Library of Alexandria was wiped off the map. As with almost any other facet of the Library, how and why it happened is left to conjecture. A dominant story has the Library collection partially burned at the hands of Julius Caesar in the Alexandrian war of 48 BCE (Delia 1460; Harris 46). As the Christian era took hold, the Library diminished in social and political importance. In 273, the invading Romans burned much of the city (Harris 46). Finally, it is said that what few remnants were left from the original Library were burned in 645 by the Muslim conqueror, Omar (sometimes spelled Umar). The burning scrolls were used to heat bath water for the conquering soldiers (Delia 1465; Harris 47). Thus ended the first attempt to create a universal library. The next attempt to create something so grandiose would not come along for another two millennia—and it would no longer be bound to place.

**Why Alexandria matters: the Book in Relationship to the Library**

The study of the Great Library is important to understanding how and why libraries form. The social, economic, and political conditions present in Alexandria continue to underlie the formation of the library as an institution throughout the rest of Western history. Power, it seems, is tied directly to text or perhaps from the texts being grouped together. The library, as I continue to argue throughout this project, is as much composed of by the system of books as it is composed by the books themselves. Whether the library is actually more about books or about cataloging them is a useful conflation that can best be examined by looking at the two words from Latin and Greek culture: *libraria* and *bibliotheke*. The root word for *library* directly refers to the materiality of books with *liber* meaning the inner bark of trees. Meanwhile, the Greek word *bibliotheke* refers to the collection of books, not necessarily to a building (Delia 1451). Noting the difference between the two concepts helps elucidate the book's relationship not just to the institution of librarianship, but also to other books as a symbol of power.

**The book**

For most of modern history, the main material form of text has been the codex or the book. Books, Ted Striphas argues in *The Late Age of Print* (a title he borrows from Jay David Bolter), "were integral to the making of a modern, connected consumer culture in the twentieth century" (5). He goes on to say, more pointedly that books have "long been tied to people's immediate economic realities" (7). As we have seen, early forms of writing like the scroll were indeed heavily tied to several economies, including early forms of labor trafficking. In his work, Striphas also explores "not only how books have become ubiquitous social artifacts but also the cultural work involved in transforming them from industrially produced stuff into 'sacred products'" (9). Even Digital Public Library of America advocate Robert Darnton describes the invention of the book with a combination of wanderlust and economy in *The Case for Books*:

> Consider the book. It has extraordinary staying power. Ever since the invention of the codex sometime close to the birth of Christ, it has proven to be a marvelous machine—great for packaging information, convenient to thumb through, comfortable to curl up with, superb for storage, and remarkably resistant to damage. (68)

The individual book by itself though is fairly benign. The real power comes through the collection, organization, and access to the congress of written work. In examining the process of transforming books from social artifacts to sacred products, Striphas asks the reader to consider the tensions in the idea of commodity (9). As Erskine notes, "There is something imperialist in the [Ptolemies'] treatment of the books themselves – organizing them, cataloguing them, and editing them" (45). Indeed, the treatment seems to smack of books being treated as commodity created by considerable labor, possessing considerable value, residing in a complex system of economic exchange.

In his *The Production of Space*, Henri Lefebvre notes the dishonest nature of commodity when he writes that "things lie, and when, having become commodities they lie in order to conceal their origin, namely social labour" (81). The labor involved in the

production of text comes from two sources: the author and the printer. The authorial labor is of course more easily recognized as it involves the creation of the actual content. But the publishing labor—the use of paper, ink, machinery for production—is less recognized, yet tends to have greater financial gain than the author. The imperialism Erskine notes comes from books being treated as commodities. By copying, organizing, cataloging and editing books, the origins of the text became less evident to the reader. According to digital rhetoric scholar Wendy Hui Kyong Chun this reappropriation to create value makes sense. Information, she says, "becomes valuable when it is portrayed as belonging or restricted to certain persons; information becomes valuable when language itself becomes 'owned'" (151). The ownership of language she describes for the digital sphere holds true when examining the Classical era. The Great Library of Alexandria made every attempt to own texts—from confiscating them to retaining master copies to limiting others' ability to acquire them.

**Collecting books**

While these texts were under the care of the Great Library, it became the job of the head librarian to figure out how to store them and, when called for, how to find them. The first librarian to tackle this in any organized fashion was Callimachus, the third head librarian of Alexandria. (It is assumed Demetrius and his first successor were too busy collecting texts to worry about classifying them.) Known as "The Father of the Bibliography," Callimachus created the *Pinakes*, a collection of 120 scrolls used to highlight the most important works in the Library (Harris 45). At the same time, Callimachus devised a system of dividing scrolls into books—a system that allowed scrolls to be shortened and stored more easily. Perhaps the most striking of his contributions to librarianship was as both a cataloger and a classifier—an assumption that "can be inferred from his division of his *Pinakes* into eight major subject categories: Oratory, History, Laws, Philosophy, Medicine, Lyric Poetry, Tragedy, and Miscellany" (Harris 45).

The creation of the *Pinakes* as well as the overall classification system of Alexandria mirrors the two-fold example Jay David Bolter provides in his book, *Writing Space*. The comprehensive collection of information comes "in two complementary

forms: the library and the encyclopedia. A library amasses books, while an encyclopedia condenses them. Both seek to organize and control texts in order to make them available to the reader" (81-82). The encyclopedia, especially in its earliest iterations "expressed in print, disseminated in the social order, embodied in the institutions, and incorporated in a new vision of the world" (Darnton, *Business of Enlightenment* 545). Champion of the Encyclopedia in the time of the Enlightenment, Denis Diderot, "wanted all knowledge on every subject available to everyone," a goal reflecting the ambitions set forth in Alexandria some centuries before (Bivens-Tatum 157). Elizabeth Eisenstein, taking a more generalized stance on the formatting of the books, notes how the "layout and presentation" of early books "helped to reorganize the thinking of readers" (70). The design of the book, she goes on to argue, guide the reader's thoughts (71).

The library, Bolter goes on to write, "attempts to control knowledge by collecting as many books as possible within one conceptual and physical structure" (91). So the power of the Great Library was not simply derived from its massive collection of books. The power came from the very things Erskine says transforms the book into a commodity—the keeping and copying and cataloging. Callimachus' *Pinakes* might therefore be—more than the books themselves—the true mark of imperialism. Bolter notes the relationship of the catalog system to the storage of books when he writes that "the library is a single physical hierarchy that is reorganized or 'written over' in several ways by its catalog system" (92). Alexandria is no exception; it is, in fact, the standard.

**Libraries beyond Alexandria**

Libraries continued to flourish after the fall of Alexandria… for a time. Many other empires tried to build their collections at the same time Alexandria was confiscating and copying texts. Libraries are mentioned to have "existed at Corinth, Delphi, and Patrae in Greece, at Ephesus, Smyrna, Soli, Mylasa, and Halicarnassus in Asia Minor, and at Syracuse in Sicily" (Harris 42). The Classical era with its emphasis on knowledge-as-power would eventually collapse into the Middle Ages and the institutions of learning and record keeping would be defunded, destroyed, and ravaged by a series of invasions. Michael Harris credits the monastery with the safe-keeping and preservation of manuscripts during the trying time of the Middle Ages.

But these smaller monastic libraries did little to draw in scholars and create the cultural center that the Great Library and Museum once had in Alexandria. Where the library stood as a symbol of social, economic, and political wealth, the Catholic Church now reigned with remote locations as disparate as Iceland (89). The collections of books were no longer the braggadocious volumes of thousands of scrolls, but a few volumes hidden in a trunk and jealously guarded by monks (89). A key figure to the field of rhetoric, Saint Augustine is credited with bringing the first monastic library to England when he was sent there at the behest of Pope Gregory in 597 (92). He "brought with him a small collection of Christian texts [...] to form a small library at Canterbury" (92).

The organization needed to maintain these small collections fell short of the impressive work performed by Callimachus. The smaller collections required less complicated forms of classification than the immense Alexandrian library. In their quest to preserve books, volumes had been locked away into trunks, leading to the "common word for library in the Middle Ages [to be] *armarium*, which was literally the book-chest where the books were kept" (99). The books contained in these aramaria "were labeled according to schemes of letters and numbers, sometimes used separately, sometimes in tandem" (Carruthers 151). Other methods of organizing the books came from rhyming catalogs meant to be memorized by monks (99) and of course alphabetization—a form of ordering dating back to the Alexandrian days (152; Eisenstein 71).

By the tenth century some of the monastery libraries coalesced into larger, cathedral libraries. Augustine's own small collection in Canterbury had grown in the centuries after his death to nearly 5,000 books by 1300 (Harris 98). Once a collection grew to this size, "the books were roughly classified by subject, and sometimes by size or acquisition" (100). Here we see the material cannot be divorced from the system as the physical object of the book itself helps determine the system by which it is classified. And since the book was a highly valuable material or commodity, how it was kept and accessed was also dependent on the economic realities of the time.

Throughout the high middle ages (1000-1300 CE) the book remained a highly coveted item and was prone to theft much as it was in the time of Alexandria. Thus book collections were rarely made available to people outside of the owners (who were largely clergy). Scholars no longer had a central hub for texts and books were often too

expensive to loan out (though, as Harris points out, the practice of library loaning was not unheard of [100]). Books allowed for public use (such as it was), were chained to tables (Harris 102; Eisenstein 71). Other devices such as the book wheel took the library patron into account. The book wheel allowed a patron to sit in one spot and rotate a hexagonal shelf with texts on each side (Harris 102-03). This let the patron cross reference materials without being able to physically handle them. The book wheel acts as a metaphor for the library during this time—separating the researcher from the knowledge, allowing texts to be cross-referenced but not handled.

For nearly 1,000 years the combination of monastic and church libraries sustained the written word—or, to use Erskine's terminology, the Church organized, cataloged and edited the written word. The faith was strong in the Church during the high middle ages and, though violence was a regular part of life, it was relatively peaceful compared to the years following. The fourteenth century saw an end to the height of the middle ages. War, disease, and climate change ravaged Europe as it descended into the late middle ages. Certainly these trying times contributed to the decline of the Church as an institution to be trusted with the sacred written word; however, my purpose is to track specifically the history of the library. Therefore I am focusing on two interrelated events leading to the decline of the Church-sponsored library—first the invention of print at the beginning of the Renaissance and the eventual movement of the enlightenment.

**Print**

The printing press, invented by Johannes Gutenberg in 1440 Germany, is often hailed as a turning point in culture. The change brought about by the printing press was slow though. As Robert Darnton points during his interview with Steve Paikin, "one medium of communication does not displace another one" [...] "Manuscript publishing continued for three good centuries after Gutenberg [invented the printing press]" (np). As Elizabeth Eisenstein explains in her thorough treatise, *The Printing Revolution in Early Modern Europe*, the advent of printing is not really 1440 so much as it is in the 1460s, when presses began to appear in urban centers outside of Germany's Rhineland (14). The next fifty years of the printing trade—an interval called the incunabula—showed the development of the book trade (8; 14-16). Print shops and book trading became more

common with the eventual decline of hand-copied manuscripts and the steady increase (and affordability) of printed books (21-22). Print shops cropped up particularly in northern Italy, the epicenter of the Renaissance.

The Renaissance era, as Eisenstein notes, is a difficult period to define with many medievalist scholars "prolonging the Middle Ages for some purposes" while others "advanc[ed] the advent of modern times" (125). Further complicating the matter of the defining of the Renaissance is its uneven spread across Europe. Technological advances were elemental in developing cultural changes, yet technology did not spread as quickly to regions outside of northern Italy and Germany. As scholars in English, it is fitting for us to examine the word Renaissance itself which means "to be born again." Coming out of the medieval era the revitalized interest in building knowledge of all types was not exactly a new idea; it instead harkens back to the classical era, which was viewed idyllically. Scholars in the Renaissance era are noted for "their celebration of revival based on classical models and their passion for recovering, collecting, and examining antique works" (132). But there is also a memory issue at play: Even with renewed interest in the classical age, the understanding of the past, especially in terms of chronology. Eisenstein cites the difficulty of art connoisseurs had in distinguishing a fifth century BCE sculpture from the work of their contemporary, Michelangelo (133). Likewise, the literati of the time mistook eleventh century manuscripts for ancient Roman works.

While the print culture fostered by the Renaissance created a demand for mass-produced books, many of the books were "old," originating in the classical era and copied by hand for centuries, before making its way into print (129). New markets related to book production also opened up—paper, writing materials, bookbinding services, and book-hunting operations added to the growing print economy. Though books still remained expensive (and bound to library desks by chains), their prices did decrease, making them more economically accessible for institutions (Harris 127). Thus, "a given purchaser could buy more books at lower cost and bring them into his study or library" (Eisenstein 47). But the books were not always of the highest scholarship. Many of the "new" texts that found their way into print were born of oral tradition and focused on less intellectualized forms of knowledge such as astrology and alchemy (50). This was

combined with an increased output of works by Aristotle and Alexandrian texts as well as some Arabic texts, resulting in a glut of information that badly needed sorting (48). The "enrichment of scholarly libraries came rapidly; sorting out their contents took more time" (51).

Printers were key to this process of sorting, probably because of the competitive, capitalistic underpinnings of the print industry. The change was not immediate though; "it took at least a century of printing before the multiform maps and tangled chronologies inherited from scribal records were sorted out, data reworked, and more uniform systems for arranging materials developed" (133). As Eisenstein notes, the print process was the beginning of circulation with "fruitful encounters between typefounders, correctors, translators, copy editors, illustrators or print dealers, indexers, and others engaged in editorial work" (49). The printers themselves were amongst the first to read reference works and "the valuable collections they themselves built up contained many by-products of their own daily shopwork" (49). The print shop then became an attraction for "men of learning and letters" (49). Meanwhile, libraries, many still Church-sponsored, stocked printed copies of "Catechisms, religious tracts, and Bibles [...] to the exclusion of all other reading matter" (53). But the era of reasoning and cross-referencing took hold and we can see the move toward disambiguation of the religious and the secular.

In one salient example, Eisenstein notes the exclusion of "Paradise" or heaven from many sixteenth century maps—the cartographers deciding it lacked certainty as a location (53). Housed in the Biblioteca Marciana, an Italian civic library built in the 1530s, is a map hailed by Simon Garfield as "signal[ing] the death of Paradise" (76). Ironically, the map was the work of a monk named Fra Mauro, "who somehow, in 1459, knew more about what was where in the world than anyone else" (75). His map straddles older conceptions of manuscript culture and Church teachings with the synthesized, lettered view of the world. Over 3,000 locations are named on the map, which also neither depicts the Earth as a planisphere nor a dual-hemisphere projection (as would later been seen in cartography) (76). But, most pertinent to the current conversation is the (dis)placement of Paradise. Along with the other infamous Biblical location of the Garden of Eden, Paradise is "set apart from the inhabited world" (76).

Figure 3.2

The Fra Muaro map contains over 3,000 labeled locations. Photo from Marianne O'Doherty, "Fra Mauro's World Map," Medievalists.net; medievalists. net; Feb. 22, 2012. Web. Dec. 28, 2015.

The anecdote of the Fra Mauro map illustrates two larger points I wish to make about the transition into print culture, especially when compared to the previous example of the book wheel. First, print brought about the ability to truly synthesize. Books were able to travel and be handled—owned!—by scholars, rather than merely viewed and memorized. From the process of synthesis, new sophisticated forms of knowledge—indeed, more comprehensive and consolidated representations of knowledge like Mauro's map—were able to be produced. Secondly, new knowledge was not always set into print.

That is, print culture also influenced scribal culture. As Robert Darnton noted his aforementioned interview with Steve Paikin, the manuscript industry actually increased post-printing press "and it continued to expand for three centuries. [...] Yes, the [printing press] was revolutionary, but it did not knock out the competition, the manuscript book. On the contrary, it reinforced it." Printed texts helped to refine scribal culture and scribal culture then, in turn, produced more informed manuscripts—whether they were inscribed or printed. Lastly, and most importantly, is a point about power. During this period the Catholic Church began losing its ability to control print and enforce its religious view on the world. (One of its own monks displaces Paradise!) Print did not erase the power of the Church; the power of the church in the medieval period is derived from its ability to indoctrinate. Manuscript production was merely a tool—a large and effective tool—for indoctrination. In order to maintain its power during the Renaissance, the Church would, like the early printers, develop an intense competition with its rivals—the Protestant faiths and a growing community of scientists and intellectuals who treated religion with skepticism.

**The Renaissance and Reformation**

Many scholars credit the printed word with sparking the Renaissance. However, as I alluded to in the previous section, the Renaissance was brought about partially by cross-referencing and synthesizing ideas; again, books were merely the tool. The book market of the Renaissance had grown considerably since the invention of the printing press in 1440 and consisted now of many factions (or readerships). Most notably, the Bible was able to be produced and translated into common vernaculars, allowing the lay people to have greater access to it.

The overbearing authority of the Catholic Church combined with the access to the written word (most notably, the Bible) largely incited the Reformation. But the contested nature of print proved to be the initial battleground between the Catholics and Protestants. While historically the Catholic Church tried desperately to control the masses by limiting access to texts, Protestantism was the first religious movement to exploit the printing press as a mass medium (165). Martin Luther's *Theses*—the trigger point for the Reformation—became the rallying cry simply because of print. Criticism of the Catholic

Church and its practices were already widespread, so the gospel Luther was preaching said nothing new; it was *how* it was delivered. Eisenstein examines December 1517 as particularly important—an interval "when three separate editions were printed almost simultaneously by printers located in three separate towns" (169). The coverage of the *Theses* and the market saturation popularized his work.

Eisenstein notes the publicity and market economics surrounding Luther's work: Book printers and distributors encouraged the local peddlers to exclusively sell Luther's work, in effect pursuing the same sort of religious indoctrination the Church had used for centuries. This "deliberate exploitation of the new medium helps to explain the paradox, which is noted in many Reformation studies, that a return to early Christian church traditions somehow served to usher in modern times" (170). In short, the invention of print "was an important precondition for the Protestant Reformation" (171). Prior to print, the heretics of the Church were more easily dispatched—kill the heretic and the heresy being espoused dies too. But in the age of print we must "keep typographical fixity in mind" (171). Heresies committed to print and disseminated across the land "could leave a much more indelible and far-reaching impression than dissent had ever left before (172). Emboldened by these heresies, opposition to the Church only grew, culminating in the actions of Henry the VIII—a divide that is still felt today (173).

The revolution caused by print was not an immediate step forward for libraries. History seemed to repeat itself as "private libraries were destroyed by Protestant reformers seeking to wipe out all evidence of the Roman Catholic Church" (Harris 103). Likewise the Catholic Church continued to maintain its hold on texts through similar means. Protestant uprisings and conflicts in Germany and France resulted in lost monastic collections. In England, by the order of Henry VIII, over 800 monastery libraries were destroyed or their collections dispersed. Of the estimated 30,000 texts in England, less than two percent are thought to have survived (103).

The destruction of small religious libraries happened at the same time as the rise of the university (104). What few libraries had been founded during the Middle Ages—Oxford, Reggio, Montpellier to name a few—lacked a centralized library. Often students shared texts forming a makeshift library (109). With the invention of the printing press

and the renewed Renaissance interest in education, libraries grew in popularity, even once again being sponsored by their states. Kings competed for texts so their collections could become symbols of opulence and power (124-25). Put simply, the destruction of monastic collections was a huge loss, but it was hardly a near extinction to librarianship; the focus rather shifted away from religious strongholds into national and economic interests.

The aforementioned Renaissance print shops were hotspots for synthesis, perhaps even more so than libraries at the time. These shops acted as "international houses" that "provided wandering scholars with a meeting place, a message center, sanctuary, and cultural center all in one" (Eisenstein 112). Within these Renaissance shops the dominant readerships were still those pursuing the sacred word in the form of religious texts and a rising class of enlightened "men of letters" (Eistenstein 109). These groups were both influenced by the book and their causes sometimes intersected. Eisenstein describes the differences between the two:

> Protestant divines diverged from Enlightened philosophes on many issues. But both viewed printing as a providential device which ended forever a priestly monopoly on learning, overcame ignorance and superstition, pushed back the evil forces commanded by Italian popes, and in general, brought Western Europe out of the Dark Ages. (167)

The close association to the men of letters gave printers a position of relative authority during this era as they "acted as patrons for authors, acted as their own author, and sought patronage, privileges, and favors from official quarters as well" (113). The position of printer through the sixteenth and eighteenth centuries proved to be "a highly volatile, unstable status group. No institutions or systems pertaining to rank, priority, and degree took their existence into account. They wavered between the lofty position of arbitrator of taste and inspired "immortals" and the lowly role of supplying, for favor or payment, commodities sold for profit on the open market" (115-16). Despite the fluctuating role of printers, they remained central to the networking of markets, texts, and authors that fueled the synthesis that eventually brought about the Enlightenment.

**The Enlightenment**

Like defining the time period for the Renaissance, the Enlightenment period is not easily defined in terms of dates. Some historians see the English Glorious Revolution of 1688 as the starting point, while others push the date back to 1650 in an effort to include the work of Decartes and Spinoza (Bivens-Tatum 2). Generally speaking, the end date is agreed to be the French Revolution in 1789. During this time a set of philosophical and political principles emerged in England, France, and America (2). Chief amongst these principles was the "belief that scientific investigation of nature and society leads to improvements and progress" (ix). Enlightenment thinkers also believed "in the necessity of education in a democratic republic and the obligation of the state to improve the lives of all its citizens, not just the lives of the rich and powerful" (ix). With the written word well instantiated into the lives of ordinary citizens during the Renaissance, the Enlightenment was able to take root.

Together, with the remaining libraries—mostly university and national—the print shop as a hub of learning, helped to usher in this new age of sharing texts and hence, rhetorical invention. As the Enlightenment took hold, the collection of texts became increasingly important to sharing knowledge. It is as Bivens-Tatum says at the end of his introduction to *Libraries and the Enlightenment*, "without Enlightenment there might still be libraries, but without libraries there can be no Enlightenment" (45). The following section traces out the growth and transition of the library during the Enlightenment.

**Academic libraries and the Enlightenment**

Universities, as previously mentioned, had been in existence since the eleventh century; however, they could hardly be considered sites of intense cross referencing of texts since their collections were small, guarded, and typically privately owned. The first true research university to grow out of the Enlightenment was the University of Berlin in 1810 (Bivens-Tatum 47). Prior to the University of Berlin, the university as an institution was largely devoted to "training future lawyers, doctors, and theologians, not in producing scholarship… [T]he faculty of philosophy was the weakest faculty, and almost always confined to undergraduate education" (52). The climate was not conducive to

collecting books. Moreover, the model of pre-Berlin universities relied on a model of relaying information, simply passing it along, rather than producing knowledge (52).

The shift from mere transmission of knowledge to the creation of knowledge during the Enlightenment makes sense, given the role of the library. The Enlightenment's proliferation of reading materials meant "it was no longer so essential to be a wandering scholar" (Eisenstein 47). Larger collections of printed books in more locations marked the beginning of "intense cross referencing between one book and another" (47). Instead of traveling many miles from one monastery or church to another just to compare one book with another, it was now possible to sit in one place, in reasonable safety, and scrutinize multiple texts at one time. University book collections played no small part as "untrammeled research into every domain of knowledge was made possible by the growth and development of academic libraries" (48).

The Enlightenment ideal of pursuit of knowledge for knowledge's sake within the university system can be mostly attributed to one man, Wilhelm von Humbolt (Bivens-Tatum 64). Working against two millennia of influence, Humbolt argued that "pursuit of knowledge for its own sake must be independent of political control" (65). The University of Berlin was the model for such a system[6] and much like the early days of library formation, imitators were plenty and political influence was inevitable. European universities adopted a library-centric view and by 1900 the university library came "to represent the 'heart of the university' [with] collections designed to play a major role in the university's newly defined objective of seeking the truth through original research" (Harris 147). Scholars traveled and stayed at the university, making it a seat of intellectual power.

I should note here that I am following a certain trajectory in this project, which will eventually lead me to the American Public Library system. At the moment in history when the University of Berlin is established, the route forward in Western library history diverges with Europe continuing along its own timeline and America establishing its own

[6] The Humbolt model of education was as much political as it was pedagogical. In terms of politics, the university needed money from the state in order to operate. However, unlike most state-funded institutions, the state would have no part in its structure (Bivens-Tatum 65). This was integral to the pedagogy of Humbolt, which consisted of three main ideas: 1. the unity of research and teaching; 2. the protection of academic freedom; 3. the centralized importance of Arts and Sciences (66). These points together furthered the idea of operating from a philosophy of deeper understanding rather than followed a prescribed practice.

path. For this project I choose to follow the progression of libraries in the United States, which has a much different story than its European counterparts.

In the years following the success of the Humboldtian Model of education, the design was adopted to form the first true research university in the United States, The Johns Hopkins University, founded in 1876 (Bivens-Tatum 48). Universities had proved to be popular and lucrative enterprises and their numbers grew from nine to more than 250 from the time of the American Revolution up to the Civil War (68). But in importing the Humboldtian Model, the Americans added their own bent—religion. Many of the American universities "were founded as sectarian religious colleges, and their efforts at moral formation took precedence over their other educational goals" (68). Resistance to the religion-focused college and stricter adherence to the Humboldtian Model was led by Henry Tappan, president of University of Michigan, as well as his appointee and later Cornell University founder, Andrew White. Eventually, with enough funding and support, the research university—a model much closer to Berlin's—was an established entity in the United States with imitators of its own.

Unlike the Classical pursuit of knowledge in Alexandria where the library reigned supreme, throughout the early history of universities in America, libraries remained in the background. As Bivens-Tatum explains, "Academic libraries are dependent on their parent institutions for their form and motivation. Throughout the history of American higher education prior to the introduction and spread of the research university, college libraries were just not that important" (83). He goes on to explain the conditions of the library as impoverished, dangerous (fires mostly), and understaffed (83). Only once universities began to transform into true research institutions did the library gain importance. And with its increased importance, the conditions also began to improve.

The number of books skyrocketed with the birth of research institutions; "small colleges might have 300,000 or more books, and large research libraries many millions of books" (85). Nearly every university library in the nineteenth century contained the same amount of writing—or significantly more—than the Great Library of Alexandria. Commerce followed with university libraries representing a new market for booksellers and "collection development, the librarian's term of art for buying stuff for the library, became a priority" (85). To aid in the process of book buying, many sellers would

organize profiles of the works—journals and books—popular in the field. The help provided by booksellers was appreciated since the wealth of books led to a wider push for more universal organization standards. Whereas in the Great Library, organization grew out of a need to find and arrange written work so it might be used efficiently, the American model's organization stems from the underlying economics of developing a collection. The link between the collection of books and economics is replete throughout the history of the library. In this chapter I have traced how the Western library is rooted in the material—a focus that has led to much conflict over the centuries as collections became competitive and books became symbols of wealth and power. In the next chapter I turn my focus to the American Public Library—a system that in many ways has managed to obfuscate the grittier aspects of the classical, medieval, and renaissance libraries. But, with a fuller view of history in mind, we can see the influences play out and infiltrate the seemingly benign system of the public library.

## Chapter 4

## Classifications of Knowledge: Melvil Dewey and the Decimal System

The birth of the American Public Library does not have the clear starting point of the Great Library of Alexandria. The American Public Library's history is a conglomeration of German university library practices, non-private collections of shared texts, and book sharing programs. In the mid-nineteenth century these institutions and practices coalesce around a single figure, Melvil Dewey, the creator of the Dewey Decimal Classification [DDC] system. I argue that the classification system Dewey developed is a form of systematized memory that remains highly influential today.

Within this chapter I hope to demonstrate how Dewey ought to be considered more fully by rhetorical studies. I provide a personal history of Dewey, including the cultural forces that would end up shaping his worldview—a view that is widely considered to be reflected in his classification system. I close out the chapter by examining the DDC as it is currently structured and how many of Dewey's nineteenth century views are still found replicated in the system.

### Organization of the early American university collection

The organization of the late nineteenth-early twentieth century university library in America was, to put it mildly, unwieldy. Part of the difficulty in managing the books came from the tendency of American universities to form large collections, whilst their European counterparts trended toward a more departmentalized approach (Harris 148). Collections of the size developed by American universities were unprecedented in history and it fell on librarians to keep the large numbers of books and journals in such a system so they could be found when needed. As a result the development and study of classification systems grew out of the United States in the 1900s.

Librarians of course had a rich history to draw upon. Classification systems had always been present in one form or another since the days of Alexandria. Demetrius of Phalerum is said to have copied Aristotle's method of organization (Erskine 39-40; Berti Costa 6); Callimachus experimented with alphabetized texts (Carruthers 152); medieval texts were sorted by size and value, some by subject (Harris 100). The early academic

library added ascension order to the list—a method organizing books by the order of their arrival (Bivens-Tatum 86). Classifications for the most part depended on the material, social, and economic conditions of the libraries. Each system was suited for a certain time, place, and collection, making it difficult to transfer or impose on another collection.

Organization proved useful to only the librarian in charge of the collection at that time. The system was invisible to the patron since academic libraries had closed stacks wherein patrons could not retrieve the books on their own (86). Indeed, Harvard's research library still has closed stacks, as does the New York Public Library (86). A sort of bibliography of the library (a telling use of word roots) developed out of the need to find texts quickly, and so the card catalog became a mainstay of the modern library (Harris 147).

**Non-private libraries in the United States: a precursor to public libraries**

The public library grew simultaneously in America with the academic library, though their histories are not initially as intertwined as one would imagine. Public libraries—or at least non-private libraries—had been technically in existence for some 200 years in Europe as books passed from "a monastery or cathedral library to public use, or as a professional collection" (Harris 149). Such instances are few but marked.

In colonial America public collections of books also originated with the private collection. In 1656, "Captain Robert Keayne, a merchant in Boston, willed his book collection to the town for a public library, stipulating that the town build a suitable building to house it" (182). A similar collection sprung up in Connecticut after the Governor willed his collection of books for a proposed college in New Haven. When the plans for the college did not move forward, they were made available through the local schoolhouse (182).

The establishment of public access to books led Reverend Thomas Bray to establish seventy libraries in America from 1695 through 1704, acting as a precursor to the Andrew Carnegie. Bray divided his libraries into three types—two of which have ties to the aforementioned religion-focused view:

> 1) the five provincial libraries, which were large libraries established in the major city of each province; 2) thirty-nine parochial libraries, which were smaller collections given to Anglican parishes; and 3) some thirty-five layman's libraries, which were distributed to ministers, and which contained books that were loaned or given outright to the residents of the area. (Harris 182-83)

Bray libraries were highly sought after with laws passing in South Carolina and Maryland to provide stable conditions and funding for libraries. Offshoots of Bray's parish library model grew in New York, Pennsylvania, and North Carolina (183). Unfortunately no provisions were put in place for the continued growth of the libraries and with Bray's death in 1730, they too died (183). In the early days of the non-private library, it appears the collections were directly linked with one's mortality, either coming into existence or committed to oblivion with one's death.

The first bridge between the Humboldtian Model of education and a public collection in United States was actually born out of Ben Franklin's debate society, Junto (Bivens-Tatum 95). The necessity of books for a healthy debate as well as their expensive price tag pushed the group to create a de facto library for its members (96). But the resulting collection proved too small and hence inadequate for Junto, so Franklin made membership public with a yearly subscription fee (97). The Library Company of Pennsylvania, as it came to be called, was successful not just in financial terms (it far outlived Franklin and still exists today), but also in terms of enlightenment. Unlike the religion-based collections of universities at the time, the Library Company "had relatively few books on religion" (97). Franklin himself classified the Library Company's books into the categories of: "History, Architecture, Mathematics, Morality, Geography, Physick, 'The Compleat Tradesman,' Animals, Chronology, Logics, Philology, 'Wood's Institutes,' and catalogs" (98). Franklin wrote of his enterprise fondly in his autobiography, stating that "these libraries have improved the general conversations of Americans, made the common tradesmen and farmers as intelligent as most gentlemen from other countries, and perhaps have contributed in some degree to the stand so generally made throughout the colonies in defence of their privileges" (194). Harris notes

how "The Library Company established a relationship between education and egalitarianism"—an ideal aligned with Enlightenment principles and later revisited by the first actual public libraries in America (99). Franklin's hope, according to Joseph LeMay, was that "education could transform the hierarchical world in which he had been born into one where persons could create themselves" (122). Besides its democratic idealism, The Library Company also "became a popular means by which local communities could supply their reading needs" and quickly spawned other subscription libraries who saw the demand for books as an economic boon (Harris 184-85).

The physical organization of subscription libraries depended on the size of the collection. Smaller collections had no organizing structure, while in the largest collections "more serious attempts were made at cataloging, ranging from simple manuscript ascension records to printed alphabetical or classified lists" (186). Unlike the early Humboldtian Model American university libraries, the first non-private libraries lacked the funds to develop a universal collection and instead pursued building a collection of "best" books (Bivens-Tatum 102-03). Furthermore, without a committed staff for the librarian (most "librarians" were volunteers), the organization of the collection was left to book selectors. Book selector and Harvard librarian, Thaddeus Mason Harris, wrote one of the earliest American pamphlets (circa 1793) on the "best methods of obtaining books and the best books to be chosen" called *Selected Catalogue of Some of the Most Esteemed Publications in the English Language Proper to Form a Social Library* (Harris 186). He divided books into three classes: memory, reason, and imagination (186). The classes, we know from chapter 2, are Baconian in nature and "invariably produced works of history, philosophy, and *belles lettres*"—or the practice of "best books" (Weigand 176). Bacon's link between history and memory is significant because it shows us how one person's version of memorization can become canon. Of course, in this chapter, I am concerned with how Melvil Dewey's version of memorization defines history. The belles lettres approach suggested by Harris sought to "institutionalize literary tastes for mass audiences: to transform reading from a special expertise, founded on ownership and proximity to books, to a *productive* and efficient form of leisure" (Augst 17). The bellecentric reasoning for libraries' existence, as we will see, does not wane for quite some time.

But socializing the masses and instilling good taste in literature proved difficult when staffing of the social library depended largely upon voluntary labor (Harris 186). Moreover, the subscription fees necessary to be a part of a social library made interest in the library mirror the financial state of the country. Economic downturns in 1819, 1837, and 1857 resulted in forced withdraws from subscription library services (Harris 187). After having books available during times of financial growth, the American public began looking for a way to ensure access to books despite economic conditions—a path that "led them eventually to the idea of supporting libraries with public tax funds" (Harris 187).

**The first public libraries in America**

Although it is widely cited as such, the Boston Public Library was, strictly speaking, not the first public library in America. The public library, as Harris aptly defines it is "the general library that is not only publicly owned and tax-supported, but also open to any citizen who desires to use it" (149). Harris then goes on to make the circulation of the materials a part of the definition as well (149). By allowing his definition to guide the historical research, it seems America had its share of "first public libraries"—Salisbury, Connecticut in 1803; Lexington, Massachusetts in 1827; Castine, Maine also in 1827; Peterborough, New Hampshire in 1833; and Orange, Massachusetts in 1846 (Harris 244; Bivens-Tatum 103). Boston though becomes the legendary library of the United States and it is a small wonder why.

Boston is described by Michael Harris as somewhat of a modern-day Alexandria: "the leading social and intellectual center in the country, [where] other cities watched jealously for new developments in Boston, and quickly followed its lead" (245). The combined prominence of the city and the building of a public library within the city solidified its historic importance (Bivens-Tatum 104-05). With its geographical location on the Massachusetts Bay and port town status, the parallels to Alexandria make for a striking resemblance.

At its founding in 1852 the trustees of the Boston Public Library published a report outlining the reasoning for its establishment. The motives were transparently belletristic in nature with the report echoing the sentiments of Thaddeus Mason Harris:

"A free public library will help educate citizens by providing them with good books for those already inclined to read them, and with better popular books to elevate the taste of library users" (105). The report also makes it clear the library is indelibly linked to the already-impressive education system in Boston (114). The public library, in this early conception, was an educational institution designed for the masses.

**Other developments in public libraries**

Michael Harris sees the founding of the Boston Public Library as the first of many other major developments in librarianship occurring in the last half of the nineteenth century. Indeed, as I have stated at the onset of this project, the histories I am outlining both in *memoria* and libraries lead up to the invention of the Dewey Decimal Classification—a deeply controlling form of loci mnemonic memory.

In 1876—the same year Johns Hopkins was founded—the American Library Association of America (ALA) was also founded. As the history of early American libraries demonstrates, the institutions had little in the way of cohesiveness and shared standards. The ALA provided libraries and librarians with "long-needed organizational structure and public forum" (Harris 246). Moreover, the ALA gave librarians a platform to elevate their position into a professional one (Bivens-Tatum 120). The same year saw the establishment of the field's flagship publication, *Library Journal* (a publication which has remained at the fore of library studies since its inception). Publishers R.R. Bowker and Fredrick Leypoldt hired a then-twenty-five year-old Melvil Dewey to act as editor (Harris 246).

The long and labored history of libraries in Western culture seems to culminate at this point. Books had become abundant in American life. Universities had well-stocked libraries. Towns had private-turned-public collections of books. Industries like social and subscription libraries, print journals, and professional organizations grew out of the burgeoning field of librarianship. And all of these factors seem to coalesce around the figure of Melvil Dewey, the creator of the Dewey Decimal Classification (DDC). His development of the Dewey Decimal Classification will eventually become the dominant form of organization and circulation for public libraries worldwide (and hence loci mnemonic *memoria*). But to study the Dewey Decimal Classification it is necessary to

understand the conditions and influences on Dewey himself, a man who was enmeshed in the university library and later became invested in the belletristic approach of public libraries.

**Melvil Dewey**

The name Melvil Dewey is familiar among librarians but remains largely unrecognized outside of library studies. When Dewey is recognized by those outside of library sciences he is most often cited for the Dewey Decimal Classification [DDC] system. It's a fair cop—his biggest impact was the DDC, although his legacy (and infamy) extend far beyond this one concept. What is not explored is the rhetorical impact that a system like the DDC has on users of the public library. Consequently Dewey himself, as I outline in this section and argue in the next section, is overlooked in my field as an important rhetor. Dewey's influence on the storage, retrieval, and curation of memories is overlooked. Likewise, his influence over the research process—including the process I am enacting in writing this dissertation—is largely ignored.

Even though many scholars in colonial and cultural studies look at the political, social, historical, and educational systems of Western culture and how they shape other cultures, they do not include public libraries in any of those categories (although the library could easily fit into any of them). The absence is confounding when the numbers are examined: The DDC has colonized collective memory of more than 200,000 libraries in the 135 countries currently using it as their default system of classification for collective memory (Kua 257).

Leading Dewey and public library scholar Wayne Wiegand points out the absurdity of Dewey's exclusion when he writes that "the hierarchical arrangement of headings Dewey ultimately devised for the decimal scheme had the effect of framing and cementing a worldview and knowledge structure taught on the tiny Amherst College campus between 1870 and 1875 into what became the world's most widely used library classification" (Weigand, "The 'Amherst Method'" 188). And unlike the classification systems in previous iterations of the library, the DDC shows no signs of abating. In fact, the longer it has been around, the less it seems to be scrutinized from a rhetorical standpoint.

**About Dewey himself**

To fully understand the DDC, it is perhaps helpful to have a biographical glimpse of the person behind the system. Just as the arrangement and organization of the Lyceum mirrored Aristotle's own loci mnemonics, the marks of the Dewey's personality—indeed, his eccentricities—can be found in the DDC.

Dewey was born in the "Burned-Over District" of Jefferson County, New York, 1851 to a strict, rising middle-class Baptist family (Weigand, *Irrepressible Reformer* 3-8). His family favored "self education" as a way to build knowledge as well as character (8). At age sixteen, Dewey began teaching. In 1867 he founded "a Young People's Lyceum" (10). The following year saw a fire break out at his school. He reportedly carried out a number of books from the burning building and in the process inhaled a lot of smoke. Shortly thereafter he developed a severe cough and a nearby physician predicted Dewey would not live beyond age eighteen (10). Death was a very real part of life in 1867; Dewey helped his father maintain a Union cemetery at the time, so death was very much a present reality. In his biography, Weigand marks these confrontations with mortality as having "a profound effect on [Dewey's] view of time and the future. Thenceforth he showed excessive preoccupation with efficient use of time" (11). The common thread throughout the rest of Dewey's life would be efficiency above all else.

Dewey recovered from his illness, but his sense of efficiency never waned. He was annoyed with the New York school system, judging it as a waste of time to learn so little (12). His views on the Baptist faith as a waste of time followed suit and Dewey soon left the Burned-Over District behind to attend Amherst College (14). In later years, he would adopt a takigrafic approach to writing—a simplified spelling—and shorten his birth name, "Melville," to Melvil (27).

**Influences on Dewey and his system**

As discussed in chapter 3, the colleges of this period in American history, the late nineteenth century, were largely concerned with the development of character and morality. Research-based education—knowledge for knowledge's sake—was only just beginning to take root. The curriculum at Amherst in 1870 was very much based in

Christianity with many of the courses concerned with the Classics (15). Typical for the colleges of this time, "the curriculum was designed to communicate universal truths already known and unquestioned, not to expose students to contemporary political issues or contemporary literature. It influenced students toward a particular world view, inculcated a definition of the role of education, and identified the rules to which the authorities to whom they should look in later life for guidance" (15). Amherst depended on the professor-vessel model of education—a form wherein the student's mind is seen as a vessel and the mind would be filled "with the best that a patriarchal White Western (and, of course, Christian) civilization had to offer" (Weigand, "The 'Amherst Method'" 183). Dewey went to college in an era where this model was starting to subside in favor of research.

In late 1872, Dewey took a job at the Amherst college library (Weigand, *Irrepressible Reformer* 17; "The 'Amherst Method'" 179). He immediately saw the potential the library had for "educating the masses" (18). The faculty of Amherst were all too glad to have someone so invested in the library and they expanded his job. In early 1873, Dewey read Charles Jewett's "A Plan for Stereotyping Titles"—a text that advocated for building a common catalog (Weigand, *Irrepressible Reformer* 19; "The 'Amherst Method'" 179). To further his research, Dewey went to Boston to visit their public library (179). There he met Charles Cutter, the director of the Boston Anthenaeum who was in the midst of creating a catalog of his own.

Upon his return to Amherst Dewey began to reorganize the library. The influences on his method of reorganization are more numerous than he was willing to publically admit. In a widely-circulated excerpt from his journal, Dewey, in his characteristic simplified spelling system, describes the moment he conceived the DDC during a church sermon as akin to Archimedes' own scientific metanoia:

> I lookt stedfastly at [the pulpit] without hearing a word my mind absorbd in the vital problem, the solution flasht over me so that I jumpt in my seat and came very near shouting "Eureka!" It was to get absolute simplicity by using the simplest known symbols, the arabic numerals as decimals, with ordinary significance of nought, to number a classification of all human

> knowledge in print; this supplemented by the next simplest known symbols, a, b, c, indexing all heds of the tables, so that it would be easier to use a classification with 1000 heds so keyd than to use the ordinary 30 or 40 heds which one had to study carefully before using. (Weigand 176)

While the moment of clarity may have been striking, it is important to remember that Dewey's conception of the DDC was anything but the work of a solitary genius or single moment of enlightenment. The influences on Dewey's work were many with detailed histories of their own, and yet they rarely receive the recognition of Dewey and his decimal system.

Chief amongst the influences, as I have mentioned, is William Torrey Harris. As superintendent of St. Louis Public Schools, Harris devised "a classification scheme from [Francis] Bacon's original structure by inverting it and slightly expanding it" (177). Instead of Memory/History as the first and primary category, it was relegated to the third and final category with Reasoning and Philosophy respectively coming before it. After reading a summary of the scheme in an 1870 *Journal of Speculative Philosophy* article, Dewey corresponded with Harris about the system (177). Additionally, the classification system proposed by Harris forced a book's "relative rather than fixed location" (180). By arranging books alphabetically, each title's location within a collection was moveable instead of remaining in flux. Dewey himself admitted to being fond of this idea (180).

Harris, too, had his influences, namely the philosophies of G.W.F. Hegel—the same person who sparked Humboldt's interest in the "knowledge for knowledge's sake" model of education. Hegel, of course, had inverted Bacon's three categories of learning (memory, imagination, and reason) to give more prominence to philosophy (182). Harris saw philosophy as a "natural structure" that "from which the rest of the structure follows" (182). The genealogical heritage of "Hegel's philosophy, whether Dewey knew it or not, constituted the philosophical foundation on which the Decimal Classification ultimately was devised" (177).

About a month after reading Harris' work, Dewey read a pamphlet titled *A Decimal System for the Arrangement and Administration of Libraries*. The work had been privately printed by Nathaniel Shurleff in 1856 (180). Shurleff was a Boston Public

Library employee. Dewey journaled about his admiration for a decimal-centric scheme, but criticized some of the finer details of Shurleff's scheme, noting that the Boston Public Library had abandoned many of the ideas since the time of the pamphlet's printing (180). Though Dewey critiqued or remained ignorant of his influences, their effect is still found in the system he devised.

The end result—the first iteration of the DDC—was not, as Weigand notes, a new creation; rather it was a contribution to, a joining in of, and adjustment to existing schemes (181). Dewey weighed the costs and benefits of some of his contemporaries' classifications—ideas that ranged from decimal systems to complete alphabetization. Ultimately he devised a system that "places the contents of a document into one of the three great Baconian divisions of knowledge, namely reason or science 100–600, imagination 700–800 and the record of events and conditions 900" (Satija 39). When presented to them, the Amherst College Library Committee agreed Dewey's system would work and encouraged him to implement it in their library.

The design of Dewey's system "mirrors the educational consensus of the late nineteenth-century Western academic world" (Satija 39). The vessel of the Amherst student's mind was filled with a "moral center [that] was located in 'Anglo-Saxonism,' a doctrine that defined 'objectivity' and touted the unique virtues, mission, and destiny of the Anglo-Saxon race" (Wiegand, "The 'Amherst Method'" 183). Moreover, the adoption of the Baconian divisions of knowledge "invariably produced works of history, philosophy, and belles letters"—or as it is commonly called, "best books" (176). For Dewey "finding the 'best book' for a reader therefore involves the creation, operation, and maintenance of a highly articulated and highly efficient book subject classification system" (Frohmann 368). The effect on the patron, Dewey says in language that echoes that of the Amherst mission, "may soon largely shape the reading, and through it the thought, of his whole community" (357). One may argue—and I certainly will—that the system has shaped the world in significant ways for over a century.

**Librarians as professionals**

By May of 1875, Dewey had the college library collection in proper order. He was promoted to head librarian. Then a promising deal involving his three favorite

subjects—simplified spelling, the metric system, and educational reform in the form of public libraries—was offered to him in Boston. He accepted the offer and left Amherst in 1876—the same year he published on his now-ubiquitous decimal scheme. Dewey worked feverishly on spelling reform and promotion of the metric system, with libraries often being the last of his three concerns. This is not to say Dewey did not work on libraries. During this time Dewey began his stint as editor of *Library Journal* and began to organize the first major conference for librarians (Wiegand, *Irrepressible Reformer* 36).

The years between 1876-1883 in Dewey's life are mired in success followed by scandal. He established his own businesses and bureaus; was fired from ALA despite being a founder; and went into business for himself. None of his side deals or public embarrassments distracted him from working on the library system. The coming years would become much more influential on the history of libraries.

In 1883 Dewey was offered the position of head librarian in the newly-minted Columbia College. The school had formerly been Kings College with a curriculum consisting of the Classics like Amherst (77). The college had a typical and unimpressive early nineteenth century library managed by a clergy member (78). Columbia trustee F. Augustus Schermerhorn was himself unimpressed with their current library and solicited Boston Public Library for ideas that did more than "merely adapted the existing system to the new building" as their clergy librarian planned to do. After some politicking, the librarian resigned and Dewey was hired.

Reforms at the Columbia College Library were numerous. Dewey expanded hours from fifteen per week to fourteen per day; he hired additional staff, including women professionals (on an all-male campus); finally, he reorganized and consolidated the library's collections (82-83). The goal for Dewey was to not just "make Columbia a model for standardizing library practice, he also wanted to identify a basic collection of 'best reading.' Herein, he was convinced, lay the greatest potential for libraries, no matter the type" (88-89). The job at Columbia had grown with Dewey's ambition and his interest in librarianship outside of the university caused consternation amongst the faculty. He was undeterred.

In 1884 he proposed a financially self-sustaining library school using Columbia's building. Without asking permission, Dewey decided to admit women into the program as students—a political maneuver I scrutinize at the end of this chapter (92). The university board felt it had no authority to deny admission since the program took none of the school's funds. One trustee, Charles Silliman, disagreed and disallowed Dewey from using the school's classrooms for his courses (93). In a move characteristic of Dewey, he told the school's janitors to clean out a storage area above the school's chapel—which technically was not a classroom and not under the authority of the board. He then opened his school on schedule with seventeen of the twenty students as women (93).

Dewey's library school focused on three areas of training: character, library practices, and authority over reading (94). The authority over reading demonstrates the foundation of the modern library system, including its training, the belletristic idea of best books. In a political move meant possibly to assuage some of the angst he created at Columbia, Dewey deferred the librarians' judgement of best books to outside authorities like literary journals and classroom instructors. The effect of this move, according to Wiegand, "robbed librarianship of a direct claim to 'authority' to determine 'best reading,' thus significantly limiting its potential power in the world of professionals" (95). In the long-term, the deference of librarians to outside authorities might also explain the lack of research by outside authorities into librarianship. In fact, the creation of bibliographies for public libraries is considered by Jesse Shera to be "no more than an unstructured cluster of particular enterprises, each shaped by decisions that were based almost wholly upon the dictates of fortuitous circumstances—of time, of place, and of the materials or resources that were readily available (167-168).

Following a common theme in his life, Dewey again became embroiled in scandal at Columbia and orchestrated a way to graciously resign in 1888. He already had another job lined up; this time as State Librarian and Secretary to the USNY Board of Regents (Weigand *Irrepressible* 106). In an interview Dewey won over the search committee by "wax[ing] eloquent about the State Library's potential to foster the public library interests of the entire state" (129). The Regents had a responsibility, according to Dewey, "to inspect and charter public libraries like colleges and academies, and to establish a 'system of university extension' run through local libraries by the State Library" (130). Just as

during his time at Columbia, he also advocated for an educational and professional component for the librarians (133). But now, in a position of significant governmental power, Dewey was able to do more than be merely outspoken. As Secretary, Dewey crafted a valuable piece of legislation called The University Law of 1889 (136). The law, once passed, would give the Regents more power. Specifically it would give the Regents the power to extend university libraries. It would be the first of several University Law bills presented and politicked by Dewey. Incrementally, Dewey built the public library system out of the university libraries the Regents now oversaw.

**Libraries as educational reform**

The biographical events of Dewey's years working at the state level provide a basis of understanding how the current public library system came into existence and how it was born out of a university system—a system that itself was undergoing major changes as it transitioned from small private colleges into research-driven universities. As part of the effort to legitimize and standardize education, Dewey crafted more legislation aimed at discrediting fraudulent universities (like The New York College of Magnetics where a doctorate could be earned in three months) (143). In order to make education more accessible Dewey proposed running a university "extension through the state's public libraries to deliver higher education—including programs leading to university degrees—efficiently and cheaply to millions of New York citizens" (143).

Dewey also instituted a system of 1,000 traveling libraries of the "best books" as defined by the ALA and other stakeholder organizations (202). The traveling 100-volume collection libraries sparked the interest of the local municipalities and the number of public libraries established in New York grew from 29 to 75 with the circulation jumping from 70,000 to 600,000 (203). Dewey of course saw this as confirmation to the belles lettres approach to educating the masses. Dewey believed the public library to be one "engine" in a tripartite of education, the other engines being the church and school (33). The library was especially important to Dewey because it would "give the masses the opportunity to build on their formal education at their own level, at their own pace, and—within limits fixed by printed texts the dominant culture prescribed—according to their own direction" (33). The system Dewey devised was meant to remain obscured from the

user, yet lead them to certain texts to solidify a world view. The selection of texts in this system—in part chosen by literary journals and products of time, place and materials as Shera notes—were less controlled by the librarian than they were by industry.

True to Dewey's ambitious character, he continued to popularize his decimal system using his position at *Library Journal* and at conferences he organized. In some more impassioned speeches, he argued that the public library as an institution could actually replace the American university system. Dewey went as far as suggesting that libraries change their names instead to "people's university" (Dewey and Vann 134). And while the phrasing of "people's university" never caught on, the DDC did as libraries continued to grow.

But the growth of the public library system is a growth of costly material wealth and housing these quickly-expanding collections proved to be expensive. While Dewey made strides in building public interest in the library through his development of library schools, collection development, publication of *Library Journal*, and the organization of the ALA, it would take a different type of benefactor to provide the places to house the collections. That person would be Andrew Carnegie. Before I turn to Carnegie's legacy to the American public library system, I want to examine the impact of Dewey's legacy and how it still affects library users today.

**Dewey's impact**

In *What is Rhetoric?*, Covino and Joliffe write that "rhetoric might be understood as the study and practice of shaping content" (4). This is one of many definitions the authors offer throughout their introduction. After studying the history of the library system and the motives behind the DDC, the definitions of shaped systemic memory seem to speak more to rhetoric than the texts found therein. While Covino and Joliffe pay special attention to the place of verbal rhetorics, it makes more sense when discussing the rise of the library to see how their definitions of rhetoric and rhetor apply to the material culture of the late nineteenth century. Rhetoric, they write, is "socially contingent, epistemic art that is both philosophical and practice and gives rise to potentially active texts" (5). If we look at Dewey as a rhetor and the DDC as his text, then the contents are

the books found in the library. The activity found within the structure of the library system is circulation—an idea I take up later in this chapter.

The rhetoric of library systems—namely the DDC—has been under-scrutinized. In the field of library science the "dearth of recent literature on the subject of socio-cultural implications and intellectual biases is worrying" (Kua 264). Even more worrying is the nearly complete absence of criticism by rhetoricians. Stephen Paling, as a library science scholar, writes that "classificationists should consider rhetoric a valuable part of what they do, and that rhetoricians should view classification as an underdeveloped part of rhetorical studies" (588-89). The philosophies put forth by Michel Foucault in *The Birth of the Clinic* and *Discipline and Punish* have been embraced by rhetorical studies. In these works Foucault "explored the dark side of the Enlightenment, the ways in which the desire to improve society through the use of reason led to systems of power controlling and sometimes repressing human beings" (Bivens-Tatum 28). Indeed, in rhetorical studies there is no shortage of work written on the control of obvious power systems—government, schools, workplaces, the internet, airports, prisons, inner cities. The list goes on. Very little is written about the public library because it is seen as largely a benign, positive outgrowth of the Enlightenment. The library building itself as "free and open to the public" seems to act as a great leveler of society and status. But the DDC both changes and obscures the dynamic of egalitarianism with its motive of best books. As Bivens-Tatum warns, "Classification always controls, which is why we use it, but it can also repress, which is why we must be careful" (29). Just as important as memory is systemic forgetting.

Like Aristotle, then Francis Bacon, Dewey offered a systemic approach that reshapes the way we come to acquire knowledge. Just as Aristotle invented logic and Bacon pioneered the scientific method, Dewey created a system that influenced the public discourse of the late nineteenth and the entire twentieth century by giving access to knowledge to the masses through material. It is at the material level that Paling says rhetoricians should be concerned. He focuses on a particular strand of material rhetoric that "studies the range of accretions, from prefaces to classificatory marks, that are attached to texts and affect the way those texts are used and interpreted" (590). Like Eisenstein's idea of book editors guiding thought through their layout and design (70-72),

Dewey acts as the editor of the texts found in the American public library system, guiding readers to the "best books." Despite the Classical warnings that written work would destroy memory, books have proliferated. The loci mnemonic as an imagined space in the rhetor's head has been supplanted by the material systems of memory like the DDC as a way to store and locate physical records. Despite the technological advances in *memoria*, not much changed in the way of motives. As Eisenstein says, the "desire to have 'everything in its right place' was shared by the medieval schoolman and the early capitalist alike" (75). Books in the capitalistic age of Dewey now represent the stored and recorded memory. Only the DDC outgrew its predecessors in terms of magnitude and edits memory to promote best books.

The influence of a controlling mnemonic like the DDC only grows in scope when the collection of material is taken into account. Eunice Kua criticizes the DDC for its systemic exclusion of non-Western languages. She notes the importance of "how we arrange books on a shelf" and how it "reflects and shapes our perceptions about the proper order of things" (257). Giving books a "proper place" discourages complexity and multidisciplinarity. When an arrangement is used the world over and in 30 plus languages, it deserves more rhetorical scrutiny than the DDC has received so far. The collection of material comes not only to represent a certain world view, but the collective memory of a particular culture. In the case of the DDC, the world view was imbued by the culture of Amherst and higher education in New England. The didactic professor-vessel model it facilitated meant to provide a student with a "moral center [that] was located in 'Anglo-Saxonism,' a doctrine that defined 'objectivity' and touted the unique virtues, mission, and destiny of the Anglo-Saxon race" (Wiegand 183). When the system was first introduced, "librarians like Dewey had nearly succeeded in their goal of making the library a new bureaucracy adhering to more and more inflexible rules of operation" (Harris, "The Role of the Public Library in American Life" 13). In turn, "librarians thought less and less about theoretical questions—especially those dealing with philosophy—and spent more and more time dealing with organizational matters" (13). In times hence, DDC has acted as a colonizing force with very little criticism. In large part, this has to do with its structure.

**DDC as a system**

As previously mentioned, the DDC is a hierarchical system based off the Baconian divisions of knowledge. Dewey, as a long-time supporter of adopting the metric system, liked the use of decimals given their natural formations in units of ten. Currently all of human knowledge falls under one of these ten categories:

000 Computer Science, information and general works

100 Philosophy and psychology

200 Religion

300 Social science

400 Language

500 Science

600 Technology

700 Arts and recreation

800 Literature

900 History and geography

Each of these main categories is then further divided in ten more subcategories. For example, the ten subdivisions for Language (400) are:

400 Language

410 Linguistics

420 English and Old English

430 German

440 French

450 Italian and Romanian

460 Spanish, Portuguese, and Galician

470 Latin and Italic

480 Classical and Modern Greek

490 Other Languages

Already the concerns raised by Kua in the previous section can be seen with the subclasses of 400 and 410 devoted to broad areas of study and the next seven subclasses "devoted to the study of specific European languages, mostly from Western Europe. The final subclass, 490, holds all the world's other languages, including African, Asian,

Oceanic, Semitic and Native American languages" (258). As one might suspect the "ones" place at the end of each classification allows each of these subdivisions to be once again subdivided into to provide the patron with a finer level of granularity. To keep following our example, the subdivision for Other Languages (490) breaks down into:

490 Other Languages

491 East Indo-European and Celtic Languages

492 Afro-Asiatic Languages

493 Non-Semitic Afro-Asiatic Languages

494 Altic, Uralic, Hyperborean, Dravidian languages, miscellaneous languages of south Asia

495 Languages of East & Southeast Asia

496 African languages

497 North American native languages

498 South American native languages

499 Non-Austronesian languages of Oceania, Austronesian languages, miscellaneous languages

After the decimal point, the generalized subject areas into divides specifics. The decimal for Dewey was an innovative idea because it allowed the system to refine the larger categories into infinitely smaller classifications. For example, "Models for helicopters" is classified as 629.133152. Cutting the number off "at 629.13 or 629.133 would place this resource together with resources about real aircraft, whereas keeping the first seven digits—the entire base number, 629.1331—would show that it covers only model aircraft" (Intner and Weihs 136). The last digits—52—specify that the model aircraft are helicopters. In smaller library collections these final numbers may be unnecessary if there are a scant number of materials on the subject.

In further analyzing the 490 subclass, Kua points out the essentially Westernized worldview of the DDC, "Thus, while an entire subclass is devoted to French (440 French, 441 French writing systems, 442 French Etymology, 448 Standard French usage), Chinese, the world's most widely spoken language, starts at 495.1, i.e., three subdivisions deeper in the hierarchy (490 Other languages, 495 East and Southeast Asian languages,

495.1 Chinese). The hierarchy, she writes, is even more evident in the 800 (literature) classification. Classical languages like Latin have their own subclass while "other" languages like Arabic and Chinese are subordinated to sub-sub-subclasses. Such a classification she says "not only scatters a national literature; it also privileges the language of the oppressor, in the case of many once-colonized nations" (259).

The Western bias of the DDC's structure goes beyond simple numerical ordering though. The divisions at the hundreds-level provide for some telling moments of Euro-centric thinking. Most notable perhaps is the division between the 400s and the 800s which cover literature, rhetoric, prose, poetry, and drama. Notably absent is folklore, which is placed into the 300s as a custom. This "separation of literary work and folklore potentially leads to further fragmentation, especially in cultures such as those of Africa, where there is a strong oral tradition, and the boundaries between literature and folk literature are blurred" (259). In a salient example, Kua observes how Homer's epics (who have a long history in orality) are classified as literature instead of folk literature.

The biases of Dewey and his contexts is replete throughout the DDC. Like many of the library's proceeding it, a patron's navigation of the system is akin to navigating the mind (including the loci mnemonics) of the rhetor. In this case walking through a library organized around and informed by the DDC is accepting Dewey's form of memory and remembering the world as he—and his predecessors—saw it. The system of "discovery" whereby a patron finds her own text, is misleading; the system elides how memory is formed and stored. By analyzing the system itself and the contexts, histories, and biographical details that informed its creation, we can hope to see it less as a place of mass storage and more as a limited and skewed way of storing only some memories.

**Dewey's omission from rhetorical studies**

The DDC benefits from Dewey's omission as a rhetorical figure. Given Dewey's tremendous influence, it seems to be an oversight to completely disregard his contributions to rhetoric. While it may prove hazardous to declare specifics as to why Dewey has been ignored or neglected, I think it is fair to acknowledge some of the more likely reasons he is not viewed as an important (or even a lesser) rhetorical figure. This section is not meant to denigrate the person Melvil Dewey; it is meant to more fully

examine the conditions that have affected his status amongst scholars—why he is forgotten and why the system remains.

Dewey biographer Wayne Weigand examines the exclusion of Dewey by historians, explaining in one section that he is overlooked because "he was both hero and villain, and as villain not a particularly attractive model for contemporary generations to emulate" (*Irrepressible* 189). Indeed, Dewey himself possessed a "fascinating and formidable personality;" however, he is also described as "driven, tense, often arrogant" (376). Dewey's arrogance stretched a spectrum from the eccentric to outright bigotry. Weigand goes on to note that throughout Dewey's life he had "an obsessive need to control, a preoccupation with time" (376). These quirks of the personality of course greatly informed the DDC, which has enjoyed great success. Less revered—and perhaps more cynically viewed—are Dewey's forays into spelling reform and advocating for the metric system. Although the metric system and spelling reform both in turn inform Dewey's classification system, their lack of success as individual goals casts Dewey as somewhat of an oddity, even in his day.

On his twenty-eighth birthday, Dewey officially changed the spelling of his surname to Dui (much like he had dropped the *le* from Melvil*le*). He kept this spelling until his appointment at Columbia in 1883. At the time members of the selection committee "criticized Dui for an 'eccentricity' evident in 'the spelling of his name'" (80). Dui then changed the spelling of his name back to "Dewey." William Poole, a more well-regarded (though perhaps less influential) figure in libraries, wrote to Dewey approving of the more conventional spelling and entreating him to "lay aside some, at least, of [his] orthographical peculiarities and sell like common folk" (qtd. in Weigand, *Irrepressible* 80).

Dewey's "orthographical peculiarities" appear to have long-term effects on his reputation as well. Weigand attributes Dewey's use of Lindsley's Tachigraphy—a sort of shorthand that is no longer in practice—as one of the reasons Dewey has been ignored by historians. While Dewey left copious notes and written records, the use of shorthand "created nightmares for biographers" (xiv). The same could be said for his simplified spelling. Those who are willing to decipher Dewey's writings and contextualize his efforts in spelling reform and metric system adoption, are likely to also discover his

legacy of misogyny and bigotry. I will briefly describe both of these less-desirable legacies.

As I have mentioned throughout this chapter, Dewey often found himself embroiled in scandals, often involving questionable business dealings. Perhaps more alarming though is his exploitation of female laborers. While Dewey's efforts to include women as part of Columbia, his reasoning speaks to a more sexist mindset. He considered the female personality as a credential because they naturally possessed the right "character" for the job (85). Moreover, Dewey used the women's economic reality to his advantage as he was "recruiting a work force with high character for low cost" (85). The effects of Dewey's sexism may not be evident in the DDC as much as his Eurocentrism is; however, the subjugation of women as part of political agenda has incurred long-term effects on the field of Library Science. Although he championed the field, "the curricular structure clearly reflected Dewey's perception of the library profession's appropriate jurisdictional boundaries. The authority to decide the 'best reading' would be left to experts outside librarianship who would exercise their authority in classrooms" (95). Of course these experts were male professors. Even today, the profession of university librarian is seen largely as a helper role—a perspective born out of sexism that robbed librarians of authority in their field.

Dewey's misogyny extended to more personal interactions, including what today would be considered sexual harassment. When Dewey's later victims confronted him about the matters in 1924, his innocence was put to a vote by the New York Library Association who ultimately found him guilty. As a result Dewey's hallmark conference was moved from his Lake Placid Club (which he owned) to a different venue sixty miles away, permanently damaging his reputation (340).

It should also be mentioned that Lake Placid Club is also the source to much of Dewey's later-in-life drama. True to his past, the Club became embroiled in shaky financial dealings. The club also held fast to membership rules that barred Jews (260). Although Dewey had the power to change the rules, he claimed he could not (359). This reluctance to even the scales for anyone other than himself extended to the rights of women at the Club as well. Women petitioned for the right to smoke in any of the common areas where men could smoke, only to be derided by Dewey as radicals (353).

Dewey also had a penchant "exaggerated moralism" (376)—a conceit that led to him referring to the public library as the "people's university." He placed the library on the same level as the church and public schooling. Such hubris combined with the politics he used to start of a program filled with women students at an all-male school might explain the lack of warmth extended to public library studies within the traditional university (Ireland 311). Dewey operated with disregard for the university, while at the same time using it to advantage his field.

Throughout his life, Dewey "demanded conformity to order and rules he defined, overemphasized details, and self-righteously denied his own racism and class prejudices" (376). When a figure like Dewey is steeped in a personal history of that calls into question his character, the work itself is often scuttled with the person. Dewey managed to push his vision of libraries forward—in part because of his objectionable personality traits. (He also sold the rights to the DDC following the NYLA's vote on his sexual indiscretions—a move that secured his classification as separate from him.) The man behind the system, however, is neglected. I consider this to be a shortcoming in scholarship because so much of the DDC and its influence stem from a person who many find despicable, odd, and yet fascinating. As I have demonstrated in previous chapters, especially chapter 2, memory systems are imbued with a sense of their creator. By excluding Dewey as the creator of the DDC, much of the system's biases become harder to recognize. In short, recovering Dewey as a rhetorical figure means recognizing the sexism, bigotry, and exaggerated moralism of his classification system.

## Chapter 5

## The Architecture of Memory: Carnegie and the Design of Libraries

Dewey was not alone in his quest to bring libraries to the masses. No library history of the modern age would be complete without the mention of steel magnate and philanthropist, Andrew Carnegie, who funded the construction of over 2,500 libraries during the early twentieth century (Curry 61; Harris 246). Where Dewey constructed the mnemonic by which books would come to be organized, Carnegie constructed the places where the books would be housed. In essence, they were each one part of the Classical memory structure of Cicero's imagined house or even later, Camillo's memory theatre mentioned in chapter 2.[7]

This chapter examines the history of libraries as places of memory and their ties to loci mnemonics. The architectural design of the library affects circulation and the development of the book collection itself, which in turns shapes the memory system. To this end, I show how libraries promoted nationalistic ideals during World War II and how their design has continued to change to promote different reifications of cultural memory. While some designs trigger certain memories and sentiments for the public, still other designs obscure memories. In this chapter I examine how the structure of the library facilitates the preservation of some ideas and memories while obscuring others. As I develop this idea in the next chapter, I look at the placement of libraries in community as well as their architecture, layout, and design. Specifically I use the iterations of Seattle Public Library's main building over the last century as a case study.

### Libraries as place

While Carnegie's philanthropic spirit is a thing to be admired, his contributions are, like Dewey, under-scrutinized. (I will admit there are far more studies in fields ranging from history to architecture that analyze Carnegie libraries; however, rhetorical

[7] There is, of course, an inherent memory problem in examining the history of libraries through the narrow lens of a few select men. My purpose in this dissertation is to recover the major figures of Library Science as important to the field of Rhetoric. Subsequent work, I hope, would recover some of the lesser-known and marginalized library figures who also impacted the nexus of libraries and rhetoric.

studies ignores him as it does Dewey.[8]) As I have demonstrated, the modus operandi of Dewey and Carnegie stems from a long history wherein libraries are seats of power. Whether they consciously took up the mantle of power brokering or not, the politics of housing and storing books changed little over 2,000 years and their models of cataloging and library structure do little to subvert that tradition. Even the edifice of Carnegie's libraries harkened back to the Classical era with "magnificent columns, the wide steps to the front door, the stonework" (Curry 61). The building itself was "symbolizing a long-standing national identification with Greek classicism and the Renaissance" (Carnegie and Abell 246). In some cases the buildings "sat on a base, raising the library above the sidewalk and creating a monumental Acropolis effect—an enclave above the hustle and bustle of city streets" [Figure 5.1] (246). Architecturally, the library still held on to its position of prestige in its community.

Figure 5.1

The prototypical Carnegie Library of Houston, circa 1904. Photo from "Houston Carnegie Library" Wikimedia Commons; commons.wikimedia.org. Web. Dec. 1, 2015.

[8] As I further explain, Carnegie is only partially to credit for the Carnegie design of libraries. Although Carnegie's name is more widely recognized his contributions as a rhetorical figure are considerably less than those of Dewey.

The interior design of the Carnegie library differed greatly from its American predecessors, those non-private and small Christian college libraries. Many of the early libraries "featured lots of nooks and crannies, private trustees' meeting rooms, and closed stacks" (Radway 247). The layout of Carnegie libraries were standardized, open, and well-lit. The central feature to the open floor plan was the circulation desk (247). While the desk foregrounded the "activity of book circulation at the heart of the library," it also "emphasized the librarian's authority and enabled her to exert control over everything going on around her" (247). The design "mimicked the planning devices of prison architecture, particularly those of Jeremy Bentham's Panopticon"—a centralized surveillance structure meant to imprison the captive mentally as well as physically [Figure 5.2] (Van Slyck 120).

Fig. 5.2

The Library of Congress reading room is set up as a Panopticon with the librarian sitting at an elevated circular desk in the center of the room with concentric desks facing the watchful librarian. Photo from *Library of Congress*; loc.gov. Web. Dec. 1, 2015.

In *Discipline and Punish* Foucault analyzed the effect of the Panopticon as "induc[ing] the inmate a state of conscious and permanent visibility that assures the automatic functioning of power [...] that this architectural apparatus should be a machine

for creating and sustaining a power relation independent of the person who exercises it; in short, that the inmates should be caught up in a power situation of which they are themselves the bearers" (201). The free library operated out of tradition of power and manifested into a power structure wherein the patron, guided by the DDC and the layout of the building, is actually shepherded through a narrow view of history. Again, we could revisit the idea of the Lyceum acting as the loci mnemonic of Aristotle's memory or even its derivatives like the Great Library of Alexandria perpetuating those same structures and systems. Foucault's descriptors of the Panopticon prison— "at once surveillance and observation, security and knowledge, individualization and totalization, isolation and security (249)" —could easily be applied to the Carnegie library. The patron is free to wander the stacks, but the shelves and desk are situated in such a way the librarian acts as a security guard. The patron is free to choose whichever texts she wants, but only books that fall within the parameters of "library material" are allotted a space on the shelf. And the patron is able to discover "new" texts via browsing, as long as they are *memoria*lized within the scope of the system. But is it fair to compare the library patron to a prisoner?

Surely access to books, the great invention of the public library, deserves high praise. Carnegie did after all spend over $50,000,000 of his personal wealth on the endeavor (Harris 246). But it is also important to acknowledge the personal history and motives of the man funding the powerful cultural force. As a boy growing up in Pittsburgh, Carnegie benefited from the generosity of Colonel Anderson of Alleghany who loaned local boys a book per week. Carnegie often cited this as the motivation behind his interest in providing free libraries to the public (Bivens-Tatum 117). At the same time Carnegie noted how libraries were the "best agencies for improving the masses of people because they give nothing for nothing. They only help those who help themselves. They never pauperize. They reach the aspiring, and open to these the chief treasures of the world—those stored up in books. A taste for reading drives out lower tastes" (Qtd. in Harris 247). Indeed, the venerable Carnegie library is yet another force of belles lettres working "to 'correct' the ills of industrialized society—crime, poverty and violence, among others—by providing for the working classes a more propitious alternative to drinking, gambling and prostitution" (Griffis 21).

Like Dewey, Carnegie was a product of the Industrial Revolution. (The two had previously met as part of their involvement with the simplified spelling movement [Weigand 283; Dewey and Vann 175]). Only as someone squarely involved in industry, Carnegie had a vested interest in developing a workforce free of societal ills and able to work as efficiently as machinery. The library of the Industrial Revolution becomes, in Foucault's words, "an architecture that is no longer built simply to be seen, or to observe external space, but to permit internal, articulated and detailed control — to render visible those who are inside it; in more general terms, an architecture that would operate to transform individuals: to act on those it shelters, to provide a hold on their conduct, to carry the effects of power right to them, to make it possible to know them, to alter them" (172). In her analysis of the Carnegie library design, Oriel Prizeman notes how the furniture of the library was used to encourage adoption of certain proper postures (246). More significantly, she describes how the "set-out of the stacks determined a sequential perambulation"—a guided walk-through of the DDC (246). While power might be distributed to the patrons of the library, the design of the system (the DDC) and layout of the building was purposefully orchestrated to homogenize the populace, to guide their thinking, and develop a literate working middle class.

The power dynamics were further enforced through the way in which Carnegie funded the libraries. True to his goal of wanting to "help those who help themselves," Carnegie required community buy-in to the buildings. To construct a library, a community had to provide a suitable site for the building as well as an annual cost of ten percent of the total cost of the project (Bivens-Tatum 117). The program was met with some derision, including from William Torrey Harris, who openly criticized the elitism of Carnegie (118). Detroit held off Carnegie's offer for nearly a decade, unsure if they wanted his "tainted" money, before finally constructing a library in 1910 with the funds (Harris 247).

For the most part communities took advantage of Carnegie's grants and libraries began to flourish. Most of the libraries, faced for the first time with large and complex collections, decided to use the DDC as their mnemonic (Weigand 310). Even in 1905 and afterward as Dewey continued to become embroiled in personal scandals and shady business deals, the popularity of the DDC in the Carnegie library continued to grow.

Carnegie wanted to build up a workforce and instilling the DDC "served capitalism's need for a literate but passive workforce[9]" (375).

**Carnegie design after 1908**

Attributing the design to Carnegie is a bit of a misnomer. James Bertram, Carnegie's secretary, took increased control of the design and construction of the libraries from 1908 onward (Griffis 22). The Carnegie libraries constructed early on (1890s and early 1900s) were highly ornamental in their neoclassicism with "pillared porticos, raised entrances, domed atriums and even stained glass windows" (21-22). Carnegie grew concerned about the waste of his money on non-functional aspects of the library and thus began a reform process in 1908 with Bertram at the helm.

The design Bertram developed was decidedly modern, though far more limiting than its sprawling predecessors. The design echoed the industrial mentality of the early twentieth century. As Griffis argues, "By dictating the Carnegie library's spatial construction Bertram was at the same time dictating the library's program and purpose as an organization. Bertram designed not just the library building to be modern, but the users to be modern, too: the values of industrial capitalism were replete within the Carnegie library" (24). The public library building was a product of its time. And the imposing force of the time was the Industrial Revolution with its ideals of efficiency and expediency—a machinery-like approach to getting on with life. Keeping with the industrialist mindset, Bertram "regularly criticized projects that he perceived to be overtly ornamental, as if his favoured adoption of Melville Dewey's (Melvil Dui's) principle of simplified spelling should also be applied to the grammar of ornament in architecture" (Prizeman 245). As Griffis says in his dissertation, "Library buildings give tangibility to the library organization's adopted philosophies of service and prescribe actor behaviour accordingly by affecting the staff and user's perception of themselves in relation to their immediate surroundings" (5). Unlike the book chests of medieval Europe or the private libraries of the Renaissance, "the modern library of the early twentieth century sought not

[9] We should keep in mind the narrow definition of "literacy" at this time, which focused primarily on alphabetic texts and spoken discourse—what Brian Street would call an "autonomous" view of literacy (77). Carnegie's primary objective it seems was to assimilate immigrants into the workforce.

to protect books from readers but to bring patrons and library materials together and to facilitate their interaction" (Mattern 3).

The brief overview of the architecture and design of the Carnegie era reveals a few key attitudes about the purpose of the early modern APL. First, the library acted simultaneously in the traditions of classicism as well as capitalism—and the two are interrelated. Secondly, while the library was pitched as a place for people to explore and develop their own reading interests, it was meant to promote the best books for a capitalistic workforce. Thirdly—a point I will explore in more detail in the next section—the material of the library is considered with greater import than the people it is meant to serve. In the long tradition of books-as-commodity, the privileging of the material over usership in the Carnegie Library is evident when the "spaces for the collection were often given more attention than the design of spaces for readers," (Mattern 3).

Thousands of years later and an entire continent removed from Alexandria, and the free public libraries of Pittsburgh still traded in books-as-commodity. Returning once again to the critique of the book as a sacred and valuable object in our culture, Striphas proffers a blistering overview of bookseller practices in the "neoliberal governmentality" of the current market; however, much of what he says in regard to Barnes and Noble and Amazon's promise of "unprecedented levels of freedom, interactivity, and customization—which is to say a heightened degree of control over the disposition of our lives" could also be said of the Carnegie library and its use of the DDC. That same "sense of control is an illusion," he writes. "It masks the extent to which we're surveilled, mined for data, and compelled to act in ways contrary to our own interests—more than even Karl Marx could have imagined. Instead of being in control, [...] our daily lives are increasingly controlled by the agents of capitalist accumulation" (185). The library, as it entered into the age of industrialism, at a time when only capitalists like Carnegie could afford to be philanthropists, became a place where the patrons, free to browse the stacks, were being watched and mined for information and forced to act and remember in ways unnatural to them. The illusion, as it pertains to the library during the Carnegie era, came in the form of circulation.

**Circulation**

Circulation is a form of technological memory—and, as I will eventually explain, technological forgetting. During the print revolution, "The sheer increase in the quantity of copies in circulation was actually of immense significance. Augmented book production altered patterns of consumption; increased output changed the nature of individual intake" (Eisenstein 129). Counter to the conventional wisdom of economics, mass production did little to diminish the power of texts. While the price of books declined with the invention of the printing press and book ownership began to rise, the value of books as cultural capital remained steadfast. In his assessment of the economic realities of books in the modern marketplace, Striphas provides his own definition of good books when he writes, "What makes a 'good' book good—or, rather, what makes books good—is their purported ability to transcend the vulgar economic considerations for the sake of loftier goals" (6). We see these loftier goals instilled by Dewey and Carnegie's own mechanisms to promote "best books." Circulation at the APL appears to negate the economics of the book trade; however, the system of storing and sharing texts through the DDC and a system of Carnegie-designed-and-sponsored buildings very much adhered to the principles of capitalism. The APL does not do away with capitalism by offering equal access to "free" books, it merely obfuscates the library's ties to capitalism.

Circulation changed the power dynamics of the library, yet allowed the library to remain a powerbroker. Unlike the book chests of medieval Europe or the private libraries of the Renaissance, "the modern library of the early twentieth century sought not to protect books from readers but to bring patrons and library materials together and to facilitate their interaction" (Mattern 3). The controlling mnemonic behind the interaction, the DDC, "assumed books were in dialogue with each other, that knowledge production was ever progressing" (Radway 246). For many years, the power of libraries derived from its ability to store books, to keep them from others, whether it was the general population or competing governments. Once print was introduced and books could be mass produced, the power came from the library's ability to circulate books. The power dynamic mirrors that of the printing press. Ben McCorkle writes how in the late 1800s—the era of Dewey—"we see the technology of the printing press adapt to meet increasing demands for printed material, creating a truly hegemonic status for the medium" (29).

This status was co-opted by twentieth century capitalists like Carnegie and Dewey to further the agenda of the Industrial Revolution—an agenda that expressly provided for creating a reliable, pliant working class.

But simply providing reading materials was not enough. McCorkle notes how "a change in *kind* takes place as well, one wherein the nature of the printed works comes under closer scrutiny; in a society where people are more likely to be literate, suddenly *what* one reads becomes vastly more important than *that* one reads" (29). The belletristic notion of *what* one reads was reinforced by the school system. Particularly important was the "goal of educating the masses in the shortest time possible, and by extension, to assimilating non-English-speaking immigrants into the dominant culture" (Weigand, *Irrepressible* 17). Allan Collins and Richard Halverson write that "with the Industrial Revolution, the state took over responsibility for educating children from their parents. There was a concern about immigrant children learning American values and language" (23). Indeed, legendary educational reformer Horace Mann was amongst the leaders who sought a "common education as a path for developing social cohesion in an immigrant nation" (24). But Mann's plan only reached immigrant children. The adult immigrants who arrived, many of them non-English-speaking were considered to also be in need of education—or, if they did speak English, perhaps they needed to be aligned with belletristic notions of reading. Reading, for librarians of this era, especially Melvil Dewey, was considered to be "the ultimate cornerstone of education" (Weigand, *Irrepressible* 19). The life of the immigrant, they argued would greatly improve "if they could build upon their elementary education in an informal self-paced way that accommodated demands capitalism placed upon them, and the best vehicle for this informal education was a free library stocked with shelves of 'good reading' that, with the church and school, constituted one of the three 'great engines' of education" (19). But unlike the classroom of the school,[10] the public library did not have a captive audience, so the texts had to travel with the user via circulation.

[10] The school system, was also heavily influenced by names already familiar to this dissertation. William Torrey Harris was an early advocate of the German-influenced K-8-4 model of schooling that is still used today. The Carnegie Foundation in 1906 also came to define the school day in terms of "Carnegie units"—periods for secondary classes as 50-55 minutes (Collins and Halverson, *Rethinking Education* 58).

While circulation has become a common library term over the last century, it has also grown as a key rhetorical term since John Trimbur noted the problematic nature of isolating the material conditions in the production and delivery of writing in his 1984 article "Composition and Circulation of Writing" (189). A crucial rhetorical work, *The Available Means of Persuasion*, answered Trimbur's call for more attention to the material as well as issuing its own call for the movement of "circulation from the margins to the center of rhetorical theory, making it a starting point rather than an afterthought" (Sheridan et al 61). Though their work is focused on classroom composition, I believe Sheridan et al. would include library and information studies when they write "that *all* successful public rhetoric is successful only if it effectively negotiates the material-cultural challenges of circulation" (63). Sheridan et al discuss the idea of circulation in a mostly positive light. Given their focus on the writing classroom, circulation most likely is a positive action because it means readership. Yet, in the history I provide here circulation is not overtly positive; it may even be managerial in form. To use the trite cliche: there are two sides to this coin. While the success of public rhetoric may not differ greatly between the classroom and library, their distribution does.

Sheridan et al note how successful composers "*anticipate* future considerations of distribution. Processes of circulation *inform* both the material and symbolic considerations of composing" (63-64). While the written composition produced in a classroom might anticipate its replication and distribution as a scholarly article, the systems of the library have a much different end. The classroom anticipates dissemination whereas the library anticipates the text's return to the collection—its recollection. Both phenomena are circulation; however, the library model is homogenizing—a sharing of texts rather than a keeping of them. The benefit to the author is obscured through the library model since one copy of a text could serve several people. On a larger scale, one might note how Sheridan et al write that "the moment of circulation inhabits the moment of composition" (64). When a library material circulates, it is in effect composing its readership through its sharing. How a library material circulates depends on a word already familiar to us through memory studies—recollection.

**(Re)collection**

The history of libraries is a story of collecting and then re-collecting. The creation of the library collection can be viewed as "an ongoing process of organizing what we call discursive fragments of memory into coherent bodies of meaning" (Aden et al 314): Aristotle created his Lyceum only to have the books scattered, buried, dug up, and sold. Alexandria tried to gather all the texts in the world, including Aristotle's, and the collection was pillaged. Medieval libraries hid books away in trunks in disparate locations. The Enlightenment brought the collections together. Roman Catholic collections were destroyed and their texts hidden during the Reformation. The Catholic Church countered by creating *Index Librorum Prohibitorum* (*Index of Forbidden Books*)—a list "stressing lay obedience and imposing restrictions on lay reading" (Eisenstein 178). As modern readers might expect, the list of forbidden texts incited interest and their demand grew. (For example, Galileo's work and subsequent trial by the Church became wildly popular subjects after being placed on the index [254, 264, 279].) No matter how many times texts are separated, their collections broken into individual codices, they are formed by their stewards into a type of collection. Or, in the case of the *Index*, the tool used by the ruling class to destroy a collection actually creates a counter-collection within a different social group. History is replete with the idea that books belong together—or perhaps a more Foucauldian stance is that books, when collected, instill power. On a smaller scale, the repeated dispersion of texts to the populace and subsequent collection through a controlled system is a form of recollection (and control). To briefly conflate the word familiar to both library and memory studies, the APL then is systemic recollection.

In his analysis of Aristotle's *De Memoria et Reminiscentia*, Richard Sorabji examines the use of the word *recollection*. As he defines it, recollection is more than the recovery of memory (35). Aristotle challenges the models of recollection put forth by Plato—one where "the learner simply absorbs information transmitted by the teacher" and another where "the learner works things out and sees them for himself" (37). Sorabji goes on to write that recollection "involves getting knowledge not from the external, but

from the internal, world" (37). But the library is not as dichotomous as Plato's examples. As we have seen, the vessel-professor model of Amherst is inherent in Dewey's system where patrons can find the texts for themselves. In building a library the external is made internal through the act of collection. When someone accesses the library to find a text, he is then engaging in the internal, deductive sort of research first instituted by Bacon and then later perpetuated through the DDC.

Perhaps one of the reasons public libraries, and especially the DDC, has largely gone by without comment in rhetorical studies stems from the system's ability to recollect knowledge existing outside of patron. Granted, Carnegie and Abell focus their rhetorical study on the Seattle Public Library in their TCQ article, "Information, Architecture, and Hybridity;" however, the article analyzes the historicity of the space more so than the systems of memory. Such a system thwarts scrutiny because the library patron, after accessing the collection, comes away with knowledge found using a deductive system. People "discover" information at the library; they normally do not arrive at their insight until the text holding the knowledge is found, though much could be learned from examining the system of memory by which the books are organized. To put it in the most librarian of terms, "Stacks are temporary or even casual constructions of books awaiting further manipulation or a more permanent destination" (Acker et al 536). It seems the books are dependent on human agency for meaning, whether it be the act of collecting or circulating. Indeed, as Shannon Mattern notes in her study on the design of libraries, "Foucault has been widely criticized for allowing little room for human agency or resistance—for inadequately accounting for those who fail to read, or intentionally ignore, the institution's 'script'" (285). The DDC as a form of technological recollection depends on human agency, the failure to read, the ignorance of, the library institution's script. The human, given free reign in the library, appears to be beyond the bounds of control. However, the system—the invention and the technology of the DDC—purposefully shapes the way patrons access and navigate the system thus stripping the library patron of any real power.

The sentiment is less sinisterly stated by Walter Ong, when he writes that "technologies are not mere exterior aids but also interior transformations of consciousness" (82). The collection and its organizing principles as a technology then are

invented systems of memory; recollection is the transformation of that consciousness. Sorabji writes that "a successful recollective search culminates in remembering" (41). In an everyday sense of memory—a set of lost keys or perusing an old photo album—this seems to make perfect sense. The object does the job of mere reminding in the Classical sense. But Sorabji also notes that "memory need not precede recollection;" the memory "can start with almost no gap, after the original perception or learning. Recollection, however, presupposes a gap, during which the perception or knowledge is lost" (41). Philosopher Edward Casey agrees, writing "even in the most distinctly and fully recollected memories such spatial gaps can appear as sudden and often as unsurmountable lacunae" (72). Because recollection operates in the gap of collective memory, it has the ability to actually create new memories for one to remember. And it has the ability to commit other memories to oblivion. In libraries these spaces are limited because of the DDC. New memories are placed under headings with completely new subjects being appended onto already-lengthy call numbers (see chapter 4). When materials do not circulate, they are weeded from the collection and their absence is unrealized by the system.

**The post-Carnegie era**

Carnegie's philanthropy, as discussed, was largely motivated by capitalistic ideologies and the desire to develop a pliable and subservient working class of people who would labor toward fulfilling the American Dream. Studies provided near the end of the Carnegie era suggest such efforts to stabilize the working class had failed. Patrons did not shift from reading light fiction to "more respectable fare" as predicted (Harris, "Role of the Public Library" 17). The patrons' reading habits and insistence on "fun" reading material was, unfortunately for Carnegie's vision, incorrigible. As Carnegie completed his building projects and public library systems began to operate around the country, they began to fall into more fragmented groups. School libraries—both at the high school and university level—became more common and well-funded. Political disputes over control of the library became more commonplace in the university as they were considered to be at the heart of learning (Harris, *History of Libraries* 253).

At a time when immigrants poured into the United States, public libraries redoubled their reputation as the great levelers of society and their necessity to keep the social order. A rhetoric of ethnocentrism runs throughout the reasoning for the library's continued support. A particularly salient quote comes from W. Irene Bullock of the Carnegie Library of Pittsburgh when she noted the "role of the public library in 'making good citizens,' and added that this was a 'form of patriotism made imperative, by the millions of foreigners coming yearly to our shores'" (Harris "Role" 14). The sentiments of Bullock extend far beyond Carnegie's hometown. Harris describes how librarians at this time felt like God himself had mandated them "to enlighten the immigrant and went about their various tasks in a spirit of authoritarianism that reminds one of the 'moral stewardship' of an earlier generation of librarians" (14). Amy Wan, in her book, *Producing Good Citizens*, examines how "textbooks also shaped new immigrants as economic entities by embedding messages about work and productivity in their literacy training. Many of the lessons focused on themes of making oneself worthy of citizenship through habits of productivity and literacy" (54).

The immigrant was the first of several threats—whether perceived or real—to national identity over the next several decades that would establish the APL as a symbol of American democracy. Tying the library to the American ideal of democracy speaks to the way Edward Said has described tradition as "a method for using collective memory selectively by manipulating certain bits of the national past, suppressing others, elevating still others in an entirely functional way. Thus memory is not necessarily authentic, but rather useful" (179). The selectivity of the bellectentric approach to librarianship certainly fits Said's description of tradition as a form of national identity. And with the onslaught of national crises in the first half of the twentieth century, the approach only gained momentum.

With the onset of the Great Depression in 1929, libraries were forced to reassess their role in public education and their service to the community. In the economic downturns at the end of the nineteenth century public libraries and librarians had been seen as "conservators of order" (Harris "Role" 14). This view of libraries preserving order served them well. The economic constraints of the Great Depression facilitated new technologies like microcards and microfilms which supplanted newspapers, periodical,

and government documents in hard copy at the university (Harris, *History of Libraries* 254). Interlibrary loan programs between universities also rose in popularity as the demand for resources only grew in the face of rising costs. Meanwhile, at the elementary and high school level, library programs suffered (263).

The public library persisted because it failed so spectacularly at driving readers to "best books"—or even better books in the belles lettres sense. Lowly fiction comprised 70 to 80 percent of circulated material (Harris, "Role" 17). Public libraries then were caught in a state of limbo—unable to fulfill the mission set forth by its founders, but unable to cater directly to the people already invested in "good books." At this period in time, "librarians put up a rhetorical smokescreen which only partially succeeded in hiding the library's true nature. The American public library had become a bureaucracy—a social institution without a purpose—except perhaps to preserve itself" (17). What the public library chose to serve was decidedly elitist with a selective view of history. Tamar Ashuri examines the work performed by those curating systems of memory as "mnemonic labor." Those who perform the work of mnemonic labor (in this case, librarians) "are responsible for constructing shared memories that the community is usually proud of, as well as in charge of committing others to oblivion" (106). Likewise A. Margalit in *The Ethics of Memory*, notes the complex nature of mnemonic labor in a literate society, stating that direct oral transmission of memory is secondary to the shared memories that travel "person to person through institutions, such as archives, and through communal mnemonic devices, such as monuments and the names of streets" (54). She goes on to write that "whether good or bad as mnemonic devices, these complicated communal institutions are responsible, to a large extent, for our shared memories" (54). The library, at this juncture in history, was as relevant as ever, though its structure was rather aimless and stilted toward the elitism of its founders.

**Libraries and nationalism**

The onset of the World Wars reinvigorated the profession of the public librarian and conversations surrounding the philosophy of librarianship (Harris, "Role" 17-18). Articles about the philosophy were published regularly and, most importantly, Butler

published *Introduction to Library Science*—a watershed work in critically examining the practice of librarianship (17-18).

In Germany and Italy, respectively, Hitler and Mussolini suppressed access to literature and libraries. The public book burnings in Europe were well-publicized in the United States (18). The actions of the fascists and the Nazis are a more extreme degree of the bellecentrism prevalent in the APL: "in the context of collective memory a major mnemonic agent is the state, which actively advances specific histories that are seen as supplying 'proper' contents to national identities" (Kliger 230). In reaction to widespread European literary suppression, the APL as a whole backed off its elitist, bureaucratic tact and made their collections more accessible to all. As an institution of collective memory in the United States, the library played a "vital role in promoting and preserving democracy in America by assisting the successful working of self-government. This was to be done by giving all the people free and convenient access to the nation's cultural heritage and the day's social intelligence" (Harris, "Role" 18). The librarian had moved from authority figure to a "guardian of the people's right to know" (17). Guided by this new philosophy, "the librarian must not force the patron to learn; he must 'allow' him to learn" (18). The mantra "not censorship, but selection" became the principal used for book selection. Under this system, the onus to find materials "placed the responsibility for library use on the patron—not on the librarian. The librarian need only provide access to the information; the user was responsible for coming to the library to acquire it" (19).

It should be noted here that only the attitude toward library service had changed. The system of classification, the loci mnemonic used to sort, store, and access books remained very much the same as when Dewey installed it. When patrons came to the library, they became reliant on the system instead of a person who guided them through the system. To use Ashuri's term, the mnemonic labor had already been performed when the DDC was chosen as the controlling mnemonic of the library collection. The only difference was that patrons were encouraged to access it on their own, giving them the impression of *memoria*l agency.

The events at the time and the interests they sparked would demonstrate that "collective memory is not an inert and passive thing, but a field of activity in which past events are selected, reconstructed, maintained, modified, and endowed with political

meaning" (Said 185). As Weigand says in his own genealogical study of midwestern libraries, *Main Street Public Library*, "the cultural politics of public libraries are written in the collections they acquire" (133). The idea that politics create the library and the library then reifies the political power structures has a Marxist bent; however, the collection development during this time period was a brokered process between three parties—the library professionals, community leaders, and the patrons.

The library professionals used their "self-assumed power to recommend against certain titles and for others through a growing number of collection guides and periodicals" (133). So while the onus had been placed on the patron, the traces of belles lettres were very much present in selecting the books that could be found in the library. The community leaders were often also the trustees of the library and "used their influence to select, project, and on rare occasions enforce a set of community cultural and literary values" (133). The last group, the patrons, were only able to voice their interests through circulation. The patron interests shaped the collection of the library because circulation was the primary tool used to measure community value (133-34). The patrons were not completely without power. They "knew what kind of reading they could expect from the public library, and with the power of numbers they demanded it. Gradually both [the community leaders and patrons] came to agree on the collection's parameters" (155).

The belles lettres worldview of library professionals persisted as they "professed to know the difference between 'good' and 'bad' reading; all showed little hesitation to advocate for the former, and to disparage the latter" (160). Many communities simply ignored the professionals, opting to define "best books" for themselves. In 1939 as patriotic fervor grew in the United States, the ALA drafted the *Library Bill of Rights* which pushed for a more uniform code of conduct for libraries and emphasized the freedoms of the library. In the years following the *Library Bill of Rights*, "librarians and their boards diligently and routinely worked with local patrons who drove circulation rates to evolve a discernibly unique community definition of 'best reading.' The process was highly democratic and, because it seldom sparked public comment, largely invisible" (160-61). The invisibility, as we will see shortly, facilitates a larger problem—systemic forgetting.

**Other war efforts**

Many libraries provided practical forms of support for the war effort, including special trainings for soldiers (Harris 254). The trend of special collection libraries (like medical and technical libraries) also boomed with the onset of global warfare and the need for specialized sectors of knowledge. A recent exhibit put on by the ALA and profiled by Linton Weeks on NPR.com, "When America's Librarians Went to War" showed the wartime efforts, including the publicity campaigns to portray the library as essential to preserving democracy. The "Chicago Public Library created a special Servicemen's Center — run by volunteers — with 5,000 books. And other libraries provided music and local tourist information to visiting troops" (Weeks). More libraries became education centers, teaching technical skills needed in the wartime economy (Weeks).

Most importantly and most influentially, librarians organized the Victory Book campaign to send books to the soldiers fighting overseas with the propaganda effort centered around the contrast between Hitler's infamous book burnings and America's reputation as the land of liberty (Weeks). During the second world war the over 17 million delivered books "helped to alleviate homesickness, chase away boredom and provide training to those who wanted to land jobs when they returned home" (Weeks). The effort solidified the library as part of the American tradition.

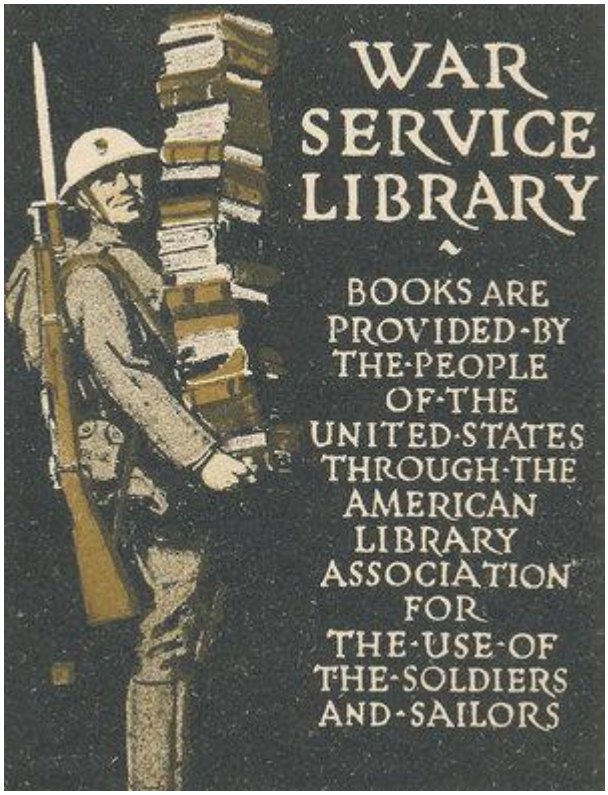



Fig. 5.3

A War Service Library bookplate displayed on the NPR website courtesy of the University of Illinois Archives.

**Post-war years**

In the post-war years, veterans attended college in droves. The GI Bill was the primary motivation, but certainly the constant exposure to books during the war aided in the soldier's' decision to pursue higher education. University libraries immediately implemented programs to expand materials, buildings, services, and hours to accommodate the sudden student growth (Harris, *History* 255). The use of non-book materials in the college classroom increased demand for libraries to begin housing filmstrips, discs, and tapes—a trend public libraries would be slow to adopt (255).

The book industry also changed. Provocative and salacious titles were seldom selected for public library collections during WWII, but rarely received outright opposition on the occasions when they were included in the library collection. In post-war years what did change was the format of the offending books. Paperbacks grew in

popularity—especially for titles considered unsuitable for the public library. In some cases, a hardback edition of a book already included in a library collection received opposition when it was reprinted as a paperback. Censorship groups argued "that paperbacks led to increased juvenile delinquency, and some argued that they were evidence of a communist plot to take over the country" (164). Despite the ALA's motto of "The best reading for the largest number at the least cost" collections privileged the less economical format of hardcover (Weigand, *Main Street* 128). When a librarian stated they did not house "that kind of material," the focus was squarely on the materiality of the book.

The rampant McCarthyism of the early 1950s also had an effect on public libraries with hundreds of titles being challenged by groups like the National Organization of Decent Literature. While anti-communist movements did little to change book buying habits (which were already in the practice of avoiding inflammatory books), libraries as bastions of free thought, as places of "selection, not censorship" remained silent (171). As libraries changed boards and new leaders rose to power, "the contours of the public library collections they relinquished to subsequent generations did not differ substantially from those they inherited" (172). Public libraries on the whole chose not to be agents of change.

As a prevalent and growing system of memory in the 1950s, the library was complicit in the creation of a nationalistic collective memory. Librarians, as mnemonic agents overseeing the rapid expansion of the libraries, chose texts that fit into the structures already in place. As Kliger-Vilenchick writes, "one of the powerful ways in which mnemonic agents can attempt to influence collective memory is by highlighting or marginalizing the memory of specific events. This is particularly important in the case of past events which have acquired certain political meanings over time" (227). Throughout the first half of the twentieth century, the social climate was highly political. The politicians like McCarthy who actively tried to alter the mnemonics of memory actually had less influence in the library. History is much more powerful. The influence of Dewey and Carnegie overshadows McCarthy: "The systems set in place decades before to winnow public library acquisition possibilities to a manageable pool privileged some

titles, suppressed others" (Weigand 164). The library's selective memory matched the nationalistic agenda of McCarthy.

**Rhetorical forgetting in the library**

In the years following the Red Scare, libraries functioned as many other professions, with annual ALA conferences and updated standards for keeping current with technology. Vocabulary reflected the changes with words like "documentation" being replaced by "information science" (Harris, *History* 282). While such verbiage connoted a change, the history of library structure still weighed heavily on the way collections were shaped. At the same time, library education programs proliferated. Between 1960-1985 library education grew to 56 accredited programs in the United States (292). In short, the library replicated many of the power structures, restrictions, and "best book" practices put in place a century—sometimes even two millennia—before.

As discussed in chapter 2, the act of forgetting assumes that a memory is simply misplaced, or without a place in a memory system—that it falls outside of the system of organization. When a memory is excluded we have to ask if it was merely forgotten—falling outside the memory structure—or if it was actively erased. The difference between the two speaks to the unrealized rhetorical power of memory in the library system.

Systemic exclusion is thought to be necessary to maintain memory. In the case of the library, it is the librarian who is assumed to be the mnemonic agent charged with both remembering and forgetting. But it in the post-Carnegie era, the agency of librarians was subordinate to community leaders and negotiated with the public through circulation. When something was forgotten, no one party was immediately to blame. In fact, it appears to be necessary to forget. Tamar Ashuri's work on moral mnemonic agents notes how "the process of forgetting is crucial to the construction and survival of modern communities" (105). The quest to remember everything has been considered foolhardy since the fall of Alexandria and the mantra of selection has guided library practice in the Western world since.

**Actively forgetting**

In *The Mind of a Mnemonist* Russian psychologist A.R. Luria calls forgetfulness an art (66). His book centers on the supernatural memory of one of his patients, Shereshvskii, who suffered from a rare condition of hypermnesia—the inability to forget. The amount of information Shereshvskii could hold and catalog in his head would make Demetrius of Phalerum jealous. But the overload of memories also proved too cumbersome. Shereshvskii had difficulty adapting if some memories were prone to change (like people's faces) (64). A certain degree of forgetting was needed to recognize a variation of the information he had been given. For his own mental well-being, Shereshvskii made it his mission to devise a way to forget.

Following an Aristotelian line of logic, Shereshvskii purposely relied on the faultiness of technological remembering in the form of writing. Shereshvskii's plan was simple; he committed memories he wished to forget to paper. He then burned the paper, hoping that the outsourced material of his memory would also destroy the memory itself—an act of *memoria*l erasure seen on a larger and more dramatic scale when Nazis and fascists rose to power in the 1930s. Alas, he said he still saw the memories inscribed in the ashes (70). And here is the parallel between Shereshvskii and the library: his "richly figurative imagination was not cut off from reality; rather, he turned to objects in the external world when he needed a means to work out some mental operation" (70). The library, to paraphrase Ong, interiorizes objects from the external world to form a figurative *memoria*l structure much like the Classical house of memory. Burning written forms of memory only destroys the material of memory, not the actual ways in which we remember, the ways we *re*collect.

Realizing the answer lay in the system, Shereshvskii learned to actively forget by creating mnemonic shortcuts as a way to cut out unnecessary details (69). This still led to a memory; the path to find the memory was just shorter. But in the end, it was the simple willful act of forgetting that freed Shereshvskii from the prison of his memory. He realized that he had to actively try to forget and that would destroy the memory (72-73). Shereshvskii's willful destruction of unwanted memories more closely resembles the act of erasure. The act of erasure by a controlling power is often what creates what is called collective forgetting—the massive loss of memory by entire groups of people. Casey

defines the phenomena of collective forgetting in relation to memory by calling it "the obliverferous obverse of collective remembering—not just its dark side, much less the mere lack, but constitutive of collective memory itself" (xii).

The use of mnemonics enabled Shereshvskii to forget; he simply made the decision to not remember. In the creation of the DDC, the attempt to collect only the "best books" and adhere to a Western worldview was stated outright. The collection of best books led to other books being forgotten. The same phenomena occurred again with the rise of nationalism and the exclusion of subversive books—and again with bias toward hardcover over paperback in the 1940s-50s. As Weigand notes, "The formations of librarians' professional discourse had made the statement 'not censorship but selection' a part of the 'library faith' and effectively masked the systemic biases built into this ostensibly neutral filtering system" (Weigand 164). By the time *library science* became a term in the 1960s, one has to wonder if the students enrolled in the programs were fully aware of the biases inherent in the system and if they took part in actively forgetting, selectively remembering or even erasing memory.

**Misplacing memories**

In her examination of Dewey's classification system, Hope Olson echoes the now-familiar sentiment that "classificatory structures are developed by the most powerful discourses in a society. The result is the marginalization of concepts outside the mainstream" (235). The loss of information is a byproduct of systematized memory. But the fault is not just with the DDC. As Olson notes, "all systems will exclude and marginalize in some way" (251-52). Following the system already in place, is not selecting a memory so much as it is recognizing what fits into the structure of the collection.

To touch once again on Shereshvskii's uniquely comprehensive memory, the act of recognition requires a certain degree of forgetfulness. Recognition also plays an important role in recollection. Casey delineates the relationship:

> Recognizing takes place by recollecting—by its aid or means. Rather than appearing in the very midst of recollection, recognizing here calls on the

> latter for the special help it can offer. This arises, for example, in situations of dim or dawning recognition when the presently proffered material is either highly ambiguous or simply insufficient. Recourse to the "absences" of recollection is then a way of elucidating or expanding "present" material. (139)

In a sense, we can only recollect what we already recognize. Like Olson, Casey sees that "even in the most distinctly and fully recollected memories such spatial gaps can appear as sudden and often as unsurmountable lacunae" (72). Sorabji likewise notes that the act of recollection "presupposes a gap, during which the perception or knowledge is lost" (41). When it comes to the library finding the forgotten memories, the gaps in classification, one has to be able to examine the system of memory from an historical perspective as I have in this chapter. We should not be surprised by the gaps left in the essentialist white, Anglo, Christian view of the DDC.

Once again Eunice Kua's blunt critique of the DDC outlines one of the main shortcomings as "relegat[ing] non-Western languages, and thus the people who speak these languages, to being afterthoughts in its organization of knowledge. This is a holdover from the Eurocentric view of the world that reinforces colonial perspectives and mentalities" (260). Her final assessment is that the DDC is "not an equitable, let alone enlightening, way for a library to function" (260). Though they are critiquing the architecture of the library, Teena Carnegie and John Abell's statement "In modern discourse, libraries reflect and reinforce social metanarratives" could apply just as easily to the mnemonic structures found therein (245).

The problem of the DDC's selective memory, its inability to recollect, its failure to recognize beyond its strictures, is written plainly in alternative classification system style guides. For example, in discussing the Universal Decimal Classification (UDC), it is noted that UDC is based on the DDC and "therefore has inherited the basic structures with all its faults and prejudices" (17). The manual goes on to say "considerable effort has been made by the promoters of the UDC to neutralise this Western bias. But they could achieve very little success" (17). The system set in place before influences those coming after it and with each degree of separation, the biases become less apparent.

Some critics of the DDC might say the best method for including a wider and more diverse audience for libraries would be to start over from the beginning—to re*place* the system (and some have). Hopefully, with the historical overview I provided, the absurdity of this proposition is evident. Such an undertaking would need to undo 2,500 years of cultural memory. In the next chapter, I examine library structures and how they act in response to the traditional (Classically-informed Carnegie era) library. I start by examining the libraries in cultural contexts and then focus on the restructuring of the Seattle Public Library—an architectural transformation that also changes the way the library functions. In chapter 7 I will examine what I come to term as "counter libraries"—smaller library systems that form in response or in addition to traditional library structures. The four counter systems I examine range from those acting in coordination with the APL to outright subverting it. They are: the Dolly Parton Imagination Library program, the Little Free Library system, the offline library, and finally, the Digital Public Library of America in chapter 8.

## Chapter 6

## Designing Memory Spaces: The Physical Library as a Loci Mnemonic

In a short 2010 article for *City*, Edward Soja proposes the recovery of a Greek term that "has remained almost entirely ignored by scholars for nearly 2000 years"—synoikismos, or as Soja prefers to spell it, synekism (273). After providing a brief etymology (*oikos* refers to a home or dwelling place; the suffix *mos* means "arising from" while the prefix *syn* connotes "being together"), Soja defines the term as "the conditions that derive from dwelling together in a particular home place or space" (273). Soja goes on to note how Aristotle's theorization of synoikismos saw it as an "active social and spatial process that involved political and cultural confederation around a traditional centre: a polis" (273)—a notion that begins with city-state formations (274). Given the etymology,[11] historical context, and recovery of the word, Soja defines it with the broader meaning of "creative living together [...] the coming together or growing together—the wedding if you will—of proximate communities neighbourhoods, villages, towns into a single urban political unit" (273). In his work, Soja's use of synekism "is no longer confined to the moment of city formation but is seen as a continuous and highly politicized process" (274).

In this chapter I will be examining the library as a spatial structure—both how it is placed within a community as well as how it is designed for patrons within those communities. I am examining the ways in which the library enacts synekism within a community—how it blends into, stands out from, subverts and reinforces certain notions of the polis. Libraries are intentionally designed structures within the intentionally designed landscape of society. The library within a community becomes a center, a political unit, for the surrounding neighborhoods and villages as Soja says. The role of the library is part of what Soja terms "the stimulus of urban agglomeration" (274). He notes how throughout history cities as communities consisting of many synergetic parts have tended to be loci for innovation. This dissertation's historical framework begins with such a city—Alexandria. Soja attributes agglomeration economies developed in

[11] The term, Soja notes "survives in biology in several ways. [...] It can mean having male and female flowers in the same inflorescence, or an association of species to the benefit of at least one" (273).

these cities for creating the social space for innovation. Such an economy "builds on time and energy that derive from clustering things together rather than spreading them out" (274).

Of course the same could be said of the library's collection. As I note in chapter 3 the development of print books and the subsequent rise in the number of books produced after the invention of the printing press allowed scholars to visit libraries and cross-synthesize texts. The library, like the city it is built within, is an agglomeration economy that has the potential to fuel innovation. I find it necessary to talk about the library as part of the larger city as well as the inner workings of the library—its guts, if I were to borrow the biological colloquialism—because "agglomeration economies are also imbricated in larger social and historical processes" (274).

Take the phenomena of noise in the library for example. A common trope in discussions about librarianship have to do with the shushing librarian. Where does this idea come from and why is it so prevalent? The answer goes deeper than outdated misconceptions perpetuated by popular media. Shannon Mattern, who has studied library design (from architecture to user experience), writes that "Foucauldian models have often been used to describe how libraries 'discipline' their patrons, or how professional discourses construct the 'administrative power' of librarianship" (Mattern 285). But noise in the library can almost certainly be traced through the way the place is designed. Mattern, in an adoxographic article, calls for "new ways of thinking about sound in the library" (279). Noise, she writes is "not something to be eliminated or controlled, but something to be orchestrated, and even *designed for*" (279-80). In other words, the design, history, and noise of the library can and do creatively live together. While my focus is decidedly not on sonic rhetoric, Mattern's delineation of elimination, control, and orchestration says a great deal about the ways in which libraries can be and have been designed—both in the context of the city as well as a space accessed by the patron. Mattern's analysis of library noise also speaks to Soja's notion of synekism since libraries as sites of memory have the ability to eliminate particular memories, control memories, and orchestrate them in order to create a certain environment.

**Locating the library in cultural context**

Before examining the actual building—the design and architecture—of the library, it is perhaps necessary to revisit the placement of the library within the larger municipal geography. As symbols of power and wealth, the physical design, placement, and architecture of libraries in a culture has been of paramount importance. The attention paid to these aspects correlates with the due given to libraries in general. When the collection of texts symbolized imperialism in Alexandria, the library held a prestigious spot in relation to the other buildings (as does its newest iteration). During Medieval times, when the collection of texts figured less prominently into society, libraries became obscured places hidden away from view. (The scarcity of texts and the associated labor needed for their production also made them targets for marauders and necessitated their "hiding.") The revival of the library as a seat of power during the Carnegie era not only puts the library back at the center of the city, but it also revived an interest in architecture for the library. As the neoclassical architecture of Carnegie's initial libraries gave way to the industrialized Bertram-designed Carnegie libraries, the needs of the rapidly changing culture were addressed in design.

The value of the library building goes beyond its walls. In deciding where to locate new libraries, the "construction of library buildings was often seen as a means of improving and revitalizing downtown areas. Many public libraries became part of the City Beautiful Movement and were built in locations that 'solved specific, immediate city problems'" (Carnegie and Abell 245). The placement of libraries in the cityscape remains crucial as many "public libraries continue to play this revitalization role. Many large cities have built new libraries in key areas" (245). Smaller towns too, have libraries centrally-located to their centers—fulfilling the ideal of the libraries as cornerstones of civilization. In his study on libraries in the rural midwest, Wayne Weigand notes how the small town of Sage, Iowa considered two properties on which to build its public library in 1909. The first property was in the center of town and priced at $2,000; the second site was not central, but priced more reasonably at $1,400. Unanimously, the board voted for the centralized location (Weigand, *Main Street* 63).

The centrality of the library to a town is seen throughout media representations as well. Libraries are portrayed as bastions of knowledge or temples of civilization. The

*Ghostbusters* movies are bookended by the same institutions of Alexandria: the first film opens at the New York Public Library and the second film ends with the (fictitious) Manhattan Museum of Art [Figure 6.1 and 6.2]. In both cases, the protagonists are pitted against supernatural forces that threaten the existential fabric of society.

Figure 6.1

The *Ghostbusters* opens with a scene set in the NYPL. Screenshot from Reitman, Ivan, dir. *Ghostbusters*. Columbia Pictures, 1984. Film.

Figure 6.2

The second film of the *Ghostbusters* franchise ends at the art museum. Screenshot from Reitman, Ivan, dir. *Ghostbusters II*. Columbia Pictures, 1989. Film.

The NYPL also figures prominently into the doomsday film, *The Day After Tomorrow*. The characters in the film hole up inside the library as the world outside freezes. Eventually, they are forced to burn books for warmth [Figure 6.3].

Figure 6.3

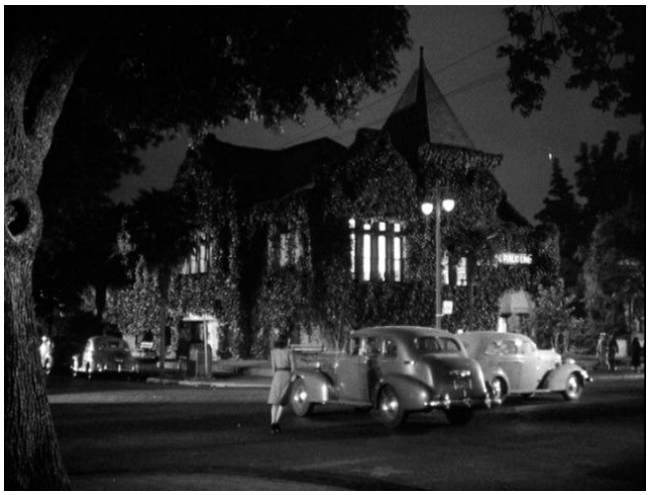
The characters in *The Day After Tomorrow* seek safe harbor in the NYPL and burn books for warmth. Screenshot from Emmerich, Roland. *The Day After Tomorrow*. Twentieth Century Fox, 2004. Film.

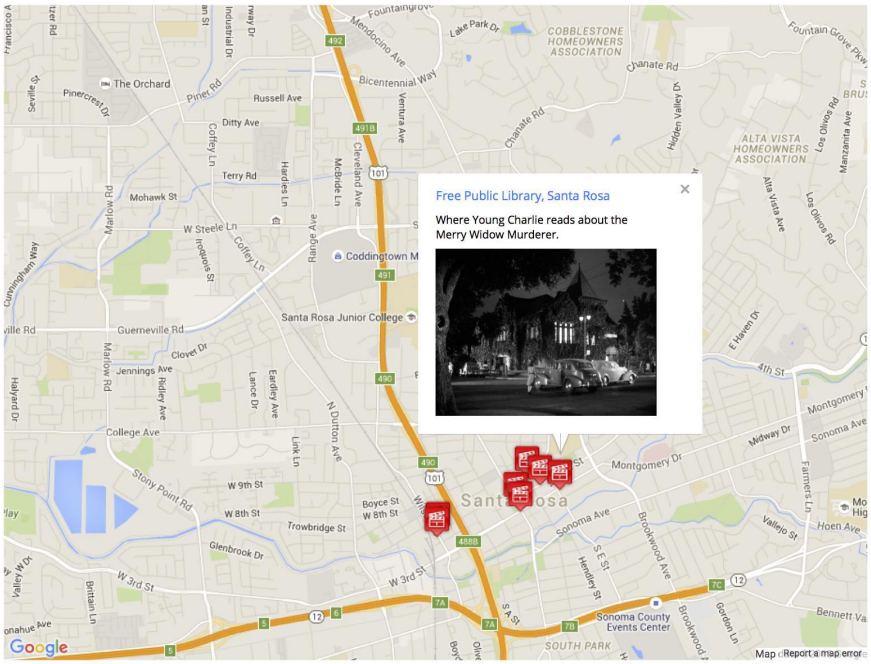
Again, the notion of central libraries extends to the small towns as well. In the underrated 1943 Hitchcock film, *Shadow of a Doubt*, the library plays a role in solving a crime.[12] In selecting the film location, Hitchcock and the scriptwriter, Thornton Wilder, chose the quaint then-small town of Santa Rosa, California (population 13,000 at the time). Hitchcock goes to great lengths to show the library as quintessential as well as central. The suspenseful sequence uses another cultural touchstone, the bank clock tower, to pace the action [Figure 6.4]. The protagonist of the film literally runs through town to the library, bumping into the traffic-directing constable along the way [Figure 6.5]. The entire sequence, down to the marmish librarian who enforces the library's operating hours, speaks to the idea of libraries not just being used as a resource, but also as an essential part of maintaining order in society.

[12] The library as the place for solving crimes is common cinematic trope. Movies like *Seven*, *The Phantom Menace, Philadelphia, Indiana Jones and Last Crusade*, and *All the President's Men* all make the library a plot point. In literature Umberto Eco's *The Name of the Rose* also uses the library (specifically its organization system) to solve a crime.


Figure 6.4 and 6.5

Hitchcock gives the viewer two quintessential small-town America symbols of order—the town clock and the police constable. In the context of the film, where a murderer has infiltrated the small community, the struggle is between order (further symbolized by the library) and madness. Screenshots from Hitchcock, Alfred, dir. *Shadow of a Doubt*. Universal Pictures, 1943. Film.






Figures 6.6 and 6.7

The public library of Santa Rosa (top) sits at the town center as seen in figure 6.7, making it suitable for Hitchcock and Wilder's film. Both images pulled from the.hitchcock.zone/wiki, Dec. 21, 2015. Web.

**The placement of libraries in the community**

In the post-Carnegie years of library construction, the desire to assimilate the immigrant had seemed to cool considerably. New libraries were less focused on emulating classical structures and many of the libraries constructed in urban areas in the latter half of the twentieth century came to embrace the local population and collective memories of the community with designs reflecting their heritages. Joshua Ramus, the project director of the Seattle Public Library, in noting the irrelevance of the Carnegie design asks, "Why build a library that looks like a rich white person? [...] A kid from Laos doesn't know what a Carnegie Library is" (qtd. in Mattern, *Downtown* 56). Indeed, the history of the building—its location and design—often reflect the history and values of the communities in which they are housed.

These community histories are still rooted largely in the immigrant experience though. Carnegie is seen as alienating to communities because the design of his libraries

was steeped in classical architecture (not to mention the panopticon design assumed patrons needed policing). His design was meant to impress classical, capitalistic, and classist values on the working immigrant; to mold them into ideal subservient citizens. Ramus and many of the other contemporary library designers in this chapter recognize the problematic history of Carnegie. At the same time, the other controlling force of the APL—the *memorial* structure of its classification system—is replicated through designs recognized by the community as relevant. So a kid from Laos may walk into a library and see his culture reflected in the design and layout; however, the way in which the texts are collected, stored, and accessed still acts in culturally oppressive ways.

Like most libraries in the 1990s, San Antonio was looking to be seen as relevant and interesting in the digital age. For their redesigned main library, they hired Mexican architect, Ricardo Leorreta (Mattern, *Downtown* 49). The San Antonio Public Library serves a population with Mexican heritage and sought to redesign Southwestern architecture (49). The result is a controversial main library building[13] dubbed by the local community as the "Big Enchilada" due to its bright red color [Figure 6.8] (49). The design of the building is based on Mexican architecture and is "indeed very much 'Southwest' without resorting to Southwestern chiches of adobe, tile, and Spanish Colonial style" (52). Architecture critic David Dillon notes the use of color—reds hued form the clay of central Mexico, purple benches juxtaposed with yellow walls—saying, "In a city that has neglected color despite its rich Latino heritage, the bold, red-walled library appears to have awakened a dormant cultural memory" (qtd. in Mattern, *Downtown* 52). Yet, the collection remains obstinately centralized around Western memory, since "most of the building's 'iconic-ness' lies in its aesthetics and form, not in its function" (53-54). The building is visually interesting, but the structure is incongruent with the loci mnemonics instituted by the DDC. For example, an "atrium cuts up each floor plate into odd partitions, challenging the building's legibility for patrons and hindering the staff's ability to survey their entire subject areas" (54). By ignoring how the classification system interacts with the physical layout of the library's contents, one

[13] The controversy surrounding the "Big Enchilada" stems from several factors: lack of access to the public (specifically those who use public transit to get to the library), the cost associated with the use of a major architect, the high maintenance of the building (it had to be repainted almost immediately because of sun damage), and the poor layout in the children's area (no line-of-sight for the librarian) (Mattern 53-54).

might look at the library that embraces traditions outside of white, Anglo culture as inept or inefficient. Buildings like San Antonio, as flashy as they are, perpetuate a cultural gap by ignoring it.

In 2014 Robert Dawson published *The Public Library: A Photographic History*, a compendium of images of the United States' public libraries, ranging from the small and abandoned to the ostentatious and absurd. Many of the libraries reflect the contexts of their communities. The Esperanza Moreno Branch Regional Branch Library is located just north of Ciudad Juarez—one of the deadliest non-war zones in the world due to drug cartel violence. The city is a place in transition and the library is regarded as a safe space. Over the years, the population has shifted from chicano to Mexican. The design of the library has embraces its role in the community as well as the population through Southwestern design (see Figure 6.9) (Dawson 49). In no way is the classification or collection redressed to fit the design.

Fig. 6.8 and 6.9

(Dis)Affectionately known as the "Big Enchilada," the San Antonio Public Library (left) has a different take on Southwestern architecture than the Esperanza Moreno Branch in Ciudad Juarez (right). Photo on right from "Career Opportunities at SAPL," *San Antonio Public Library*; mysapl.org. Web. March 31, 2016. Photo on left from Dawson, Robert. *The Public Library: A Photographic Essay.* New York: Princeton Architectural P, 2014. 49. Print.

It is as Mattern writes: The context of library designs "lie on a continuum. Some reflect their city's sense of place by, perhaps, matching the historical styles of the city or fitting in with their urban neighbors. Others become contextual by exploiting the context, celebrating the area's climate or geography. Still others enhance the context, by

introducing something new" (50-51). As Carnegie buildings became outmoded by the latest technologies and book collections continued to grow—and grow into collections that included other media—they needed to be replaced. And without a controlling benefactor like Carnegie and the influence of Bertram, libraries were free to more accurately reflect their communities. If whether a community needed a public library was no longer a question; the query now was, *how would the library be designed?* Would cultural memories be awakened as Dillon suggested with San Antonio? Or would the placement of the library be seen as a form of colonizing—of imposing a belief on a community?

San Antonio's placement and design were somewhat controversial because of how it addressed context. The library is located at a nexus of residential spaces, parks, and a central business district. To further complicate matters, its neighbors have a variety of architectural styles that are not of the Southwest—a modern hospital, a neoclassical church, and an 1850 gothic convent (Mattern 51). While the design of the library might acknowledge heritage in a skyline dominated by central-European styles, it does a poor job of recognizing its context. For example, the main entrance faces the parking garage, "an obvious privilege for those who arrive by car" (52). The plaza outside—where the residential and park spaces converge—is acknowledged by the library "with a high, red, impenetrable wall" (52). The Project for Public Spaces has voiced dissatisfaction over the lack of access for people arriving by bus. (Bus stops are located along the blank outer wall, far from the main entrance [53]). And of course the bright red color of the building is also a point of contention with its exact hue described by the citizens as "dried-blood-of-taxpayers-squeezed-till-they-bleed red," "bleeding-heart-liberal red," and "truly repulsive red" (qtd. in Mattern 53).[14] The comments, though directed at the color, reveal underlying angst surrounding the project.

The location of the public library and how it interacts with and contextualizes a community is of as much importance as its actual design. Libraries, though they are dreamt up by architects, must be shaped by their communities and speak for their communities. However, "any public library building that wants to be a civic icon must

[14] These descriptions were pulled from a "name-that-hue" contest hosted by the *San Antonio Express News* to describe the bright red color of the building.

first prove itself as a library. A successfully functioning library says volumes more about civic identity than a pretty building that is not a good functioning library" (54). In the next section of this chapter, I examine the functionality of library design, including that of Seattle's famed main library building.

**Designing the library**

Because libraries and books had come to occupy a valued place in Western culture, the privilege of designing the building became a major undertaking. While architecturally library "design strives to imbue its buildings with the values of the institution and activities that will be housed within" (Clark 4), the context of the community, as discussed above, cannot be completely ignored. Likewise, the commodity of the book as an influence cannot be ignored. One design in particular is emblematic of the negotiations between materiality and cultural values—the book tower.

The social and economic conditions of the 1930s spurred on a more functionalist aesthetic where architects attempted to answer "the organizational problem of storing an ever-expanding library collection and making items quickly accessible for patrons" (Acker et al 532). In Europe, a popular form to solve this problem was the book tower. An obstinately brutalist design, the tower was "designed to be nothing less than a storage and retrieval machine" (532). The influence of capitalism and the Industrial Revolution was noticeable as the concept was "derived from the American skyscraper, but also from American examples of vertical warehouses" (533). Just as the skyscraper as business center has defined the skyline of many American cities—the World Trade Center in New York, the Sears Tower of Chicago, the US Bank Tower of LA—the construction of vertical libraries became an interest in England, Belgium, and France. (This is not to say the United States did not construct their own book towers during this period; university libraries constructed at this time borrowed European architectural concepts as well as learning models. Library towers can be found at Chicago, Yale, Michigan, Ohio State, and Princeton [533].)

The symbolism of library architecture cannot be overlooked with architects like Henry van de Velde referring to his book tower at Ghent University as "Ghent's Parthenon" (532). The library book tower is very much a symbol of power—and one that

highlights the book as the source of power. Johnson-Eilola examines the rhetorical effects of architecture and construction. In doing so, he also begins to draw comparisons between buildings and texts—a salient relationship when analyzing libraries as a places accessed by the public. The difference between architecture and construction, according to Johnson-Eilola "articulates architecture as a symbolic activity tendentially located outside of function, but always colonizing it. Similarly, texts, when they succeed, have material effects" (125). The materiality of the book is inherently bound up in the design of the buildings in which they are housed. Acker et al note how many of the tower designs "are invested with an even more metaphorical dimension when the books themselves are used as building components. Towers as built forms of monumental architecture are then made of stacks or piles of books" (536). The idea at first seems absurd, even childlike; however, if the hardware of the book is taken into account (as we will see it is in my analysis of Seattle), then the library is very much designed around the form of the codex. Book towers reflecting this ideal include the British Library in London with its King's Library Tower, Book Mountain in Spijkenisse, Netherlands [Fig. 6.10 and 6.11] and the newspaper storage building at Boston Spa in West Yorkshire, England (536). More playful designs that both make use of the book as a building block as well as reinforcing cultural heritage include the Kansas City Public Library parking garage [Fig. 6.12], the entry way into the Cité du Livre-Bibliothèque Méjanes, Aix-en-Provence in France [Fig. 6.13], and the public library of Ordos in inner Mongolia [Fig. 6.14].

Fig. 6.10

Exterior view of Book Mountain. The shape of the building is determined by the block of texts inside (see Fig. 6.11).

Fig. 6.11

Interior view of Book Mountain. Both photos for 6.10 and 6.11 taken from MVRDV.nl. Web. Nov. 5, 2015.

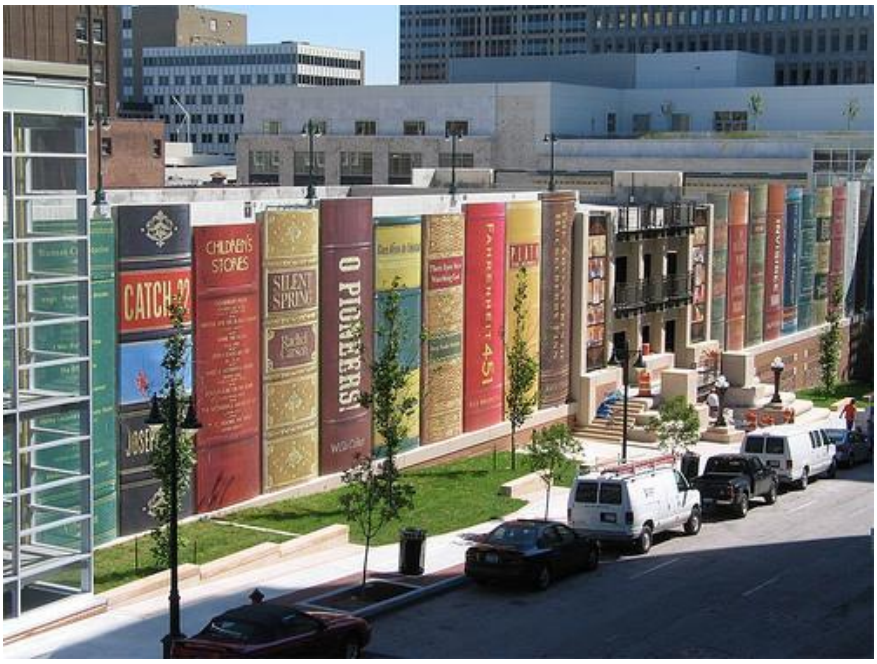



Fig. 6.12

The gigantic spines of classic American novels create a literary facade to the Kansas City Public Library parking garage. The "books" are both building materials as well as foundational texts.[15] Photo from "Community Bookshelf," *Kansas City Public Library*; kclibrary.org. Web. March 31, 2016.

[15] The texts were selected by Kansas City Public Library patrons as well as by the library board. The titles demonstrate both local interests as well as diversity. Two titles are compilations of Kansas City stories. Other titles include *Silent Spring* by Rachel Carson, *Their Eyes were Watching God* by Zora Neal Hurston, *Tao Te Ching* by Lao Tzu, *Black Elk Speaks* by Black Elk, as told to John Neihardt, and *Invisible Man* by Ralph Ellison. It is also worth noting that Gabriel García Márquez's novel, *One Hundred Years of Solitude* retains its Spanish title, *Cien Años de Soledad*.


Fig. 6.13

Like Kansas City Public Library, the Cité du Livre-Bibliothèque Méjanes, Aix-en-Provence uses three oversized classic French texts as part of the building—Camus' *L'Etranger*, Antoine de Saint-Exupéry's *The Little Prince*, and the collected work of Moliere. Photo from "A whirlwind tour of libraries and archives in three French cities;" *The Newberry*; Newberry.org; Dec. 17, 2013. Web. Nov. 5, 2015.

Fig. 6.14

The Ordos library in inner Mongolia also makes the book integral to design—though the "texts" remain untitled. Photo from Synotrip.com; Oct. 1, 2011. Web. Nov. 5, 2015.

The design of library buildings, as Acker et al say is "far from innocent" (538). Their specific critique of book towers being: "If defining secure ground for the edifice of knowledge is the foundational question of library science, then establishing hierarchical order is what that vertical edification process is all about" (538). While "library towers

may use architecture to reveal, hide, or neglect the structure and order of library systems" (539), I contend that all library designs act similarly, including the most innovative ones like the public library in Seattle and playful ones like Kansas City. Indeed, figures 6.12-14 all display the entry point into the library as through books. As innocent as this seems, each library's design speaks to the placement of the book as the central form of memory in the library system even though many libraries circulate far more A/V materials like CDs and DVDs. Additionally, the collection of books in Kansas City and Cité du Livre-Bibliothèque Méjanes demonstrate how architecture can reinforce belletristic notions of literature and cultural hegemony. Designs that "hide or neglect the structure and order" obfuscate the memory systems (and their biases) at play in the library. This becomes problematic when memories are trying to be recovered because it makes suppression of memory easier. The problem lies not in the design itself, but in the lack of historical context—again the idea of the library being built around a faulty memory system.

**Seattle Public Library's history**

As history has shown, libraries were important institutions of power that were constructed in collaboration with the dominant economic interests of their time and location. Not much has changed. As communications and architecture professors Teena Carnegie and John Abell say, "politically, in modern discourse, public libraries communicated a town's status within local, national, and sometimes international contexts" (244). They go on to note that libraries were "central to civic identities" (244).

The development of a civic identity is precisely why a public library was proposed in 1891 "to transform Seattle from 'a hamlet on the westernmost border of civilization' to a city at the front of civilized life" (244). Funding for the library had been secured and the building was constructed in 1906. Like many of the library efforts of the era, the Seattle Public Library was a Carnegie project. The design of the building was hallmark early Carnegie—grand staircases, ornately decorated reading rooms, a raised base that created "a monumental Acropolis effect" (246). Just as the libraries of the time promoted the best taste in books, the library exemplified the best in architecture. (See Fig. 6.15)

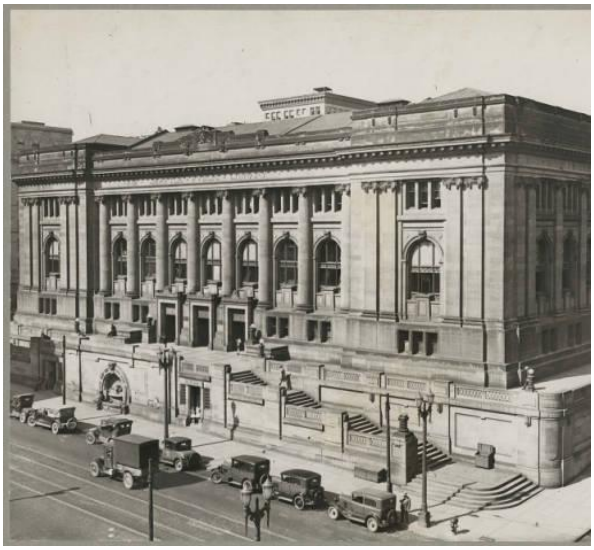


Fig. 6.15

Seattle Public Library circa 1928. The library is indicative of early Carnegie—columns, raised base, and ornate stonework. Photo from "Seattle Public Library, Special Collections Online," *Seattle Public Library*; spl.org. Web. March 31, 2016.

The Carnegie library was demolished and replaced by 1960 with a more modern and accessible building. The entry steps met the street and the walls were sheeted glass to allow in daylight. The new library's style "emphasized a functional, machine aesthetic" of the era (248). The design was based around the modernist concept of modularity with movable walls and freestanding bookshelves (Mattern, *Downtown* 4). Libraries of this era very much had a box-shape to them, a quality library historian David Kaser says is designed around the "real library module—the book itself" (qtd. in Mattern, *Downtown* 4) (See Fig. 6.16). Kaser's sentiment echoes the same feelings of those who designed book towers.

Fig. 6.16

Seattle Public Library circa 1965. The modern aesthetic allowed more access, but quickly became outdated in the digital era. Photo from "Seattle Public Library, Special Collections Online," *Seattle Public Library*; spl.org. Web. March 31, 2016.

The modern style library fared well in Seattle until the age of the computer. The sudden access to seemingly unlimited amounts of information through the computer threatened to make libraries as physical places obsolete. Or, as Carnegie and Abell write, at most, "the public library is constructed as an access point or interface to the network of information. Such characterizations often reduce libraries to a simple convergence of the digital with print resources of information" (248). And, of course, the importance of print was considered to be evaporating at alarming rates. Seattle's Office of Metropolitan Architecture (OMA) then made the bold proposition to build a new public library—the most expensive ever constructed in the US. The language used to describe the present state of libraries and their bleak future starts in a decidedly Foucaultian posture:

> The Library represents, maybe with the prison, the last of the uncontested moral universes: communal accommodations for 'good' (or necessary) activities... The moral goodness of the Library is intimately connected to the value of the book: the Library is its fortress, librarians are its guardians... As other mediums of information emerge and become plausible, the Library seems threatened, a fortification ready to be 'taken' by potential enemies. (OMA 4)

The OMA issues an ultimatum of sorts when it writes that "unless the Library transforms itself wholeheartedly into an information storehouse (aggressively orchestrating the coexistence of all available technologies to collect, condense, distribute, 'read' and manipulate information), its unquestioned loyalty to the book will undermine the Library's plausibility at the moment of its potential apotheosis" (6). The mission of Alexandria—to collect everything—has been revived in the form of digital collecting.

The final turn of the OMA's introduction embraces the Alexandrian model of librarianship when it states that technology is not a threat—rather "it enables the realization of ancient ambitions—totality, completeness, dissemination, accessibility. In any case, the anticipation of a looming conflict between the real and the virtual is moot at the moment where the two can be made to coincide" (8). The irony here is rich—a more open and accessible model of library intones goals and language reserved for empire building. Despite the sensationalized claims and imperialistic pretensions, the report sensibly calls for a hybridized design of the library "in which space, interface, and information share an architecture"—an idea that sounds like the synekism of Soja's cityscape (Carnegie and Abell 250).

Similar to many growing major metropolitan areas transitioning from a Carnegie building to a new library, Seattle held a high-profile campaign that led to world-class Dutch architect Koolhaas designing the new library. When the $152 million building was unveiled in 2004, the shape—or lack of recognizable shape—of the library represents the amorphous form of information storage. The book as a building material was absent to the exterior, displaced by the abstract, nodal blob of networked technology. The Seattle Public Library is "characterized by asymmetry, nonlinearity, polychromy, and abstraction. It reflects the discursivity of the information age" (251). Unlike its cloistered, segmented and classically symmetrical predecessor, the new library's interior is open, multi-leveled, and transparent with features like espresso bars, multiple entryways, an auditorium, and a "mixing chamber"—a computer access room with mobile reference librarians (Fisher et al 139). The design is considered revolutionary; however, in a study of patron perception, Fisher et al received familiar criticisms of the library—that it looked like a warehouse and even a "minimal security prison" (143). (See Fig. 6.17)

Fig. 6.17

The current main library building of the Seattle Public Library designed by Rem Koolhaas. Photo from "Seattle Public Library, Special Collections Online," *Seattle Public Library*; spl.org. Web. March 31, 2016.

In a passage demonstrating the lack of understanding between the fields of Library Design and Rhetoric, Shannon Mattern, notes how Koolhaas' design "is not mere rhetoric, it changes the way the library operates" (71). Of course how the library operates, its design, architecture and placement all constitute "mere rhetoric;" they combine, they creatively live together to form the structure of the library. Perhaps most significantly for a project that critiques the DDC as heavily as I have, is the Seattle Public Library's "book spiral."

**The Book Spiral**

The Seattle Public Library provides a useful illustration of the flexibility of the collection and how it deals with the conflict of a given space. In their analysis of the Seattle Library's nexus of architecture and information access, Carnegie and Abell write that "Today, the public library is not a marble temple for books; rather, it is an archival system for accessing and retrieving a proliferating array of media and services. Programmatically and physically, the postmodern library is governed by asymmetrical patterns of access and use" (251). Balancing these forces in the physical place of a Carnegie building is a challenge in that "older public libraries present obstacles to new

patterns of library use and access" (251). The problem in many older libraries is thought to be inevitable—"the arbitrary arrangement of the book collection as dictated by each floor's capacity" (Mattern 79). But the additions to the services and hardware offered by the library have also displaced books. Book collections have become displaced by computer terminals and meeting spaces. And range shelves are no longer solely inhabited by the codex; the DVD, CD, video game, and audiobook also demand real estate on the shelf.

But the problem is more than physical commodity—it is also circulation and market demands. As books are checked out en masse or as the collection markedly grows under one division due to patron interest, the classification of books has to shift, leading the to the arbitrary placement of books. Koolhaas was able to solve the problem of "arbitrary collection arrangement" by imitating the structure of a parking garage—a long squared spiral incline without breaks between the floors of the library. The "book spiral" as it came to be called allows the patrons "to access the full run of the Dewey decimal system in one continuous, sequential order, without having to trudge to upper or lower floors to continue where one floor's numbers run out" (79). Furthermore, the shelving is designed with spaces to allow for the accordion-like growth of the collection. Koolhaas' architecture, as Johnson-Eilola notes "is both space and action" (124); it allows for storage as well as circulation. As patrons use the library, the collection is continuously responding. It is as Acker et al note: "Stacks are temporary or even casual constructions of books awaiting further manipulation or a more permanent destination" (536)—only it seems there is no "permanent destination."

Marc Auge says, "Architecture is the expression of the system" (xvi). The Seattle Library is literally built around the rhetoric of the DDC—a form of recollection that has carried through from the first widely-established American public libraries. While the form of the building and styles may change with technology, the most neglected aspect—the relic in most need of revision—is the loci mnemonic by which the information is housed and the buildings are designed around. The DDC becomes the controlling force behind the structure.

In the next chapter I discuss the ways in which alternate systems of memory—counter systems I call them—push against the traditional notions of librarianship. I am

concerned with nodes of information that have formed in response to the dominant system. While the counter systems are not always disruptive, they are part of an agglomeration economy. In chapters 7 and 8 I examine three systems—or what I call counter systems for library memory—that eschew the use of the DDC in their creation of libraries. Each one has its own set of limitations and certainly none of them provides a comprehensive model for collective memory. What I hope to demonstrate is how a use of multiple systems—a sort of systems literacy approach—can build a system of memory that may not remember everything, but calls attention to what is forgotten.

## Chapter 7
## Counter Systems of Memory: Disruptions to the APL

Because library history is imbricated with tales of power and might, coercive tactics to promote cultural hegemony, and strategic forgetfulness, it becomes natural for counter movements to form much as they did during the Reformation. This chapter examines three library systems formed in response to the APL. I begin by defining the term I use throughout the chapter, counter systems of memory. I then examine the first counter system, a youth-focused literacy program that relies on a book distribution model. I give a brief history of the program and analyze the results and some areas where it might continue to develop. I then pivot into discussing a second counter system, the Little Free Library (LFL). In this section I first give a personal introduction before moving into a history of the LFL. I examine how LFLs are used as *memoria*l structures and how they recover the body as a site of *memoria*l practice. I also discuss how LFLs are used differently by various libraries.

Lastly, I provide a brief discussion about the Offline Library, specifically its practice of developing Personal Portable Libraries. As with the discussion on LFLs, I provide a personal frame of reference before relaying the history behind the idea. While the Personal Portable Library is an intriguing idea, it is deeply flawed. I spend the latter half of the section discussing where the ideological structure does not translate well into practice as well as how it is related to issue of Tor networks and "dark web" sites.

### Counter systems of memory

While the Seattle Public Library provides a unique physical design for public libraries as it considers the patrons and the patron's actions in the context of the digital age, it still adheres to the problematic history of the library as an imperial institution. Redesigning the library building as a container for memory does not actually change the way memory is stored. It may affect the way we interact with memory and change the way we see the collection, but the loci mnemonic is still the same. In this chapter I am concerned with counter systems—a term I am appropriating from Michael Warner's *Publics and Counterpublics*. In this project a counter system is a form of collecting,

storing, and granting access to memories that acts as an alternative to the dominant system. A counter system can memorize the same information but store it and grant access differently, or it might remember different information than dominant systems.

I selected Warner's basis for examining counter systems for two reasons. First because he defines public, a word essential to my study, in such great detail. The word, as history shows, when used to describe the library, is casual, almost stripped of meaning. Warner foregrounds the idea of people circulating information in both print and oral form, leading to a definition of public that not only serves new and old public libraries, but also some of the non-print based libraries I discuss later in this chapter as well as in the next chapter. In defining public, Warner sets out seven criteria:

1. A public is self-organized (67).
2. A public is a relation amongst strangers (74).
3. The address of public speech is both personal and impersonal (76).
4. A public is constituted through mere attention (87).
5. A public is the social space created by the reflexive circulation of discourse (90).
6. Publics act historically according to the temporality of their discourse (96).
7. A public is poetic world making (114).

Though each of Warner's points merits discussion (which he provides in his book), it is sufficient to note that public libraries may not have always been as "public" in the Warner sense as one might think. It is only in the last fifty years that they have truly strived to be public institutions—and ones still fraught with memory problems at that.

Secondly, Warner provides a model for me to talk about counter systems of memory—those ways of creating and storing memories that challenge the structure of the APL's worldview. Warner's notions of publics lends itself to my idea of memory systems in the public library. The APL is what Warner might define as a dominant public, which he defines as institutions that "can take their discourse pragmatics and their lifeworlds for granted, misrecognizing the indefinite scope of their expansive address as universality or normalcy" (122). Indeed, the APL and its prescribed form of memory, the DDC, have a limited view of the world and present it as an accurate and all-encompassing lens. The lens of the library since the twentieth century has been

steadfastly focused on traditional literacy with the goal of creating a pliable working class.

Even now, long past the era of Carnegie, libraries remain engaged in literacy efforts. Many of the efforts operate "outside" of the library's memory structure—such as Reading is Fundamental, Reach out and Read, and Bookstart (Reigner 269-70). And many of these efforts are book distribution programs that give books directly to people outside of library circulation. Libraries adopt these programs or sponsor these programs to operate alongside their collection, not as a controlling force within the collection. As stated, the counter system does not have to be oppositional, nor does it have to be maintained or operated by people outside the dominant structure. The counter system might be more easily viewed as praxis enacted over the existing organization system. For example, a book club sponsored by a library might buck all convention by working not within a genre or author, but maybe as audiobooks read by one certain performer.[16] The practice of the book club then becomes an interface through which the original system is re-viewed. Quite simply, "publics act historically" (123), much as the public library does. But the practices enacted by counter memory systems, like our audio book club, challenge the traditions instilled by history through their practices.

A further point of connection between Warner's work and public libraries is the issue of literacy and access to reading—an issue at the heart of libraries. Whether the motivation was to broker greater nationalistic power or create a pliable working class from the immigrant population, the power of book collection and literacy, of libraries, has been a defining aspect of the APL. Counterpublics for Warner are not in direct opposition to publics, rather they "tend to be those in which this ideology of reading does not have the same privilege" (123). With counter systems, I am examining cases wherein reading collections separate themselves from the long imperialistic history of the library.

Take again the previous example of a book club selecting audio books based on the vocal talent: The book nor its traditional identifiers are part of the selection process for the club. The practice of the club operates in a space not historically accounted for by

[16] The importance of an audio performer seems like a recent phenomenon with many A-list celebrities lending their vocal talents. For the blind community, the performer-as-interpreter has long been a central issue to audio books.

the organization system.[17] As with the phenomena of forgetting in chapter 5, the gap in collection, the blank spot in organized memory, makes this possible.

Counter systems tend to operate in the gaps. Edward Casey notes "gappiness [occurs] between and around the stably situated and relatively well-defined locales of memories" (72). The library with its classification system for assigning books a place in the collection is fraught with gaps—whether it is the absence of a classification delineating audiobook talent or the lumping of "lesser" languages into one subclassification as seen (and criticized) in chapter 2. The gaps, Casey explains, "are not so much empty as simply unspecified" (72). These gaps, when recognized, become openings for alternate systems, counter systems of memory.

Warner defines this alternate system as a space "of circulation in which it is hoped that the poesis of scene making will be transformative, not replicative merely" (122). Because these gaps are excluded by the system, they are able to challenge it. A similar point of view might come out of looking at the book collection as a network of texts. In discussing the "precarious effect of networks," Sheridan et al note that while "networks can be 'ordered,' 'designed,' 'choreographed,' 'coordinated,' and 'negotiated' [...] networks depend on human agents who are capable of articulating with nonhuman agents" (108). The authors go on to "emphasize the importance of critical reflection and tactical resistance" (108). Again, this is not to say that the forgotten spaces are oppositional to the system that forgot them (though they can be!). Put simply, the humans using a system need to realize the limitations and boundaries of the system. At the same time, those boundaries should be tested. Bradley Garrett in his book on place-hacking (that is the hacking physical structures) explains that when a gap is hacked—a fissure is found in a seemingly monolithic structure—the "explorers do not see wasted space, or non-places, just places cared for and remembered in different ways" (33). Indeed, the ethic of a place-hacker, aligns with that of the virtual system hacker in that both "are recoding people's normalised relationships," (6) whether it is to the place, commodity, or classification.

[17] And historically, this would make sense. The "talking book" in the form of LP records was first designed for the blind community in 1934 (Koestler 144)—a social group that would fall outside of the intended target for workplace assimilation due to their visual impairment.

A counter library system then is often dependent on the monolithic organizing structure of the public library and the DDC. In his book, *Mobile Interface Theory*, Jason Farman provides a fitting anecdote as to how two systems of memory are needed to highlight the forgetfulness of one system over the other. In his discussion about geocaching,[18] he describes the first geocache he found amongst the stacks of the Portland Public Library. The clues provided by the person who planted the geocache led to Farman "looking up a particular phrase in the library's database. This led us to a call number at which the container was shelved among the books" (86). Most significantly he recalls, "As I wandered among the shelves of the library, my movement and purposes were not aligned with the structure and the design of the library" (86). The geocache is a small form of counter system within the public library—a way of hacking space that led to Farman's awareness of place, purpose, and design of the larger structure. Even more apparent are the places one system covers that are ignored by the other system. The counter system at once fills a gap and highlights the aporia in the dominant system.

So my use of counter in relations to systems is broad—mostly because the systems themselves exist in disparately in varying degrees of separation from the library. Put simply, a counter system as I am defining it for this project, exists because the dominant form of memory has a forgetful spot. A group of memories may be unrealized or marginalized so a system is created to fill the void. Or a method of memory differing from the dominant form might be offered as a way to recognize forgotten memories. In either case, a system is created that pushes against the dominant form of memorization. As previously stated, these counter systems sometimes supplement the dominant structure or they may push against it—sometimes both.

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[18] Geocaching is a locative game wherein objects are hidden and the coordinates are uploaded to a website (the most popular of which is geocaching.com). People, like Farman, then use the coordinates to find the cache and log their find online. Many of the caches are small containers holding a logbook to be signed.

Farman describes geocaching as a blend of "two distinct genres of locative gaming: augmented landscape gaming (in which data overlays the city) and trace-based gaming (in which the trails or tracks created by the user's movement are utilized as part of the objectives of the game)" ("Locative Life" 1). The movement then "across the augmented landscape—and the proprioception of the self in the relationship to that augmented landscape and technology that creates the mixed reality space—is how gamers are able to successfully locate geocaches and log their visits" (1). The awareness he describes for gamers in navigating these systems is much like the toggling between memory systems I propose as a way to acknowledge the gaps in within a system. In a sense, the geocache exists within these gaps. And in the case of Farman's Portland Public Library example, the cache exists within the gaps of the library.

**Counter system 1: The Dolly Parton Imagination Library as a book distribution program**

The public library of Carnegie's day filled the gap of literacy for immigrants by providing best books within the structure that reinforced the ideals of Western culture and American nationalism through its architecture, layout and design, as well as its system of memory. Developing the practice of reading English was essential to joining the workforce and many of the people who immigrated were past the age that public schooling was an option. The public library thus became one of Dewey's three "great engines of education" along with the church and the school (Wiegand, *Irrepressible* 19). While the public library of the twenty-first century has moved away from overtly championing the assimilation of immigrants, it has not forgotten about literacy—a skill, as we will see that is very much still tied to class and carries with it some of the assimilationist rhetorics prevalent in Carnegie's day. Often book distribution programs are designed to network with other literacy efforts, including those of the APL.

In this section I want to focus on a particular book distribution program, the Dolly Parton Imagination Library (DPIL) program—"an early intervention book-distribution program that provides registered children from birth to age 5 with a new book every month in the mail at no cost to the family" (Embree 89). To properly contextualize the program, I will, as with Dewey and Carnegie, preface my analysis with background about the program's inception as well as biographical information about the founder, Dolly Parton.

**About Parton and the Imagination Library**

Parton grew up in the impoverished Sevier County of Tennessee. Her father was illiterate and the only book she recalls in their one-room home was the Bible (Conyers 223). Parton, a musical prodigy, found widespread fame on the *Porter Wagoner Show*. After many years of musical success—as well as shrewd business deals to develop amusement parks and restaurants in her home county—Parton wanted to create a program to promote early literacy in her hometown. In 1995 she created "a panel of educators, academics, and early childhood specialists" who select books for distribution "according

to the age of the receiving child. The books progress in complexity and themes to assist in developing skills along the way" (223). The program quickly grew to communities beyond Sevier. In 2000, Parton "announced that she would make her Imagination Library available for replication in any community that would support it" (223-24). By 2004, the governor of Tennessee "established the infrastructure that made the program available to all of the state's 375,000 preschool children" (224). Just three years later, Parton announced the program would be available in the United Kingdom as well as Canada. The program has since mailed over 60 million books. It currently has 900,000 registered children (imaginationlibrary.com). The success of the program is marked. A 2010 study was performed in Middletown, Ohio, whose library was at the time was the largest DPIL affiliate. (It was later displaced by neighboring Greene County Public Library.) The results showed increased reading engagement with an average 81% of families reporting increased frequency of reading and 98% of low-income families reporting the same (Conyers 224).

Jeff Conyers, the Executive Director of the Dollywood Foundation (the nonprofit that oversees the DPIL) speaks of replicating models by using a larger superstructure to build a stable class of citizens:

> The replication model drives and encourages community support while the Dollywood Foundation provides the advantages of large-scale infrastructure that might be otherwise unattainable at a local level. Thus, many smaller individual communities work together as one, along with Dolly and her team, to exert the impact and experience the benefits of a much larger organization. (Conyers 224)

The labor of the program is hidden as it is advertised to the parents of the enrollees as "free." Actually the labor is provided by both the local affiliate and the Dollywood Foundation; the funding is supplied through private donations and in some cases (like Tennessee) government resources.

The local affiliate has three roles according to Conyers: 1. Register local children for the program; 2. Cover the cost of books and mailing; 3. Manage the local database of registrants (224). The Dollywood Foundation then

> provides the books and mailing system; maintains the relationship with the publisher [Penguin]; provides technical support to establish the program locally; assists with public relations and marketing materials; works with Dolly on national/international promotional efforts; provides staff assistance to the national committees that select the books; drives efforts to keep quality high and costs low; and works to inspire, share, and innovate with partners. (224)

The end result is a current cost of $25 per child per year to be enrolled in the DPIL—a cost that would likely be unattainable without Parton's support. The source of funds for the affiliates "come in many forms—businesses, individuals, chapters of the United Way, Rotary and other civic clubs, school systems, and local and state governments and other nonprofits" (224). Sometimes the nonprofits include public libraries and their foundation and/or friends groups, as is the case with Middletown. The goal of the DPIL is not to compete with the public library, but rather to encourage children to start developing libraries of their own by giving them books. Such a move is said to improve youth literacy.

When youth literacy is discussed, the phrase "slip through the cracks" is often employed. The crack can be viewed as a gap—one that is unrealized by library memory systems, yet acknowledged by library systems that sponsor book distribution programs like DPIL. The gap comes in the form of book ownership and the power that comes with it. The disparity in readership can be drawn along lines of ethnicity with "47% of Black, non-Hispanic children and 42% of Hispanic children [who] are read to daily, as compared with 64% of White, non-Hispanic children," as well as socioeconomic status with "46% of children living in poverty being read to daily as opposed to 60% not living in poverty" (Ridzi et al 551). In a comprehensive study that analyzed 70,000 cases across 27 countries, Evans et al found a direct correlation between the number of books owned and

the length of time spent in educational systems. Even after adjusting for other variables, "Growing up in a home with 500 books would propel a child 3.2 years further in education, on average, than would growing up in an otherwise similar home with few or no books" (9). Even ownership of just 25 books increases the child's advancement in education by two years over that of a household with zero books, even when taking other economic factors into account (12). A child enrolled in the DPIL at birth until her fifth birthday will have accumulated 60 books. For many children, the DPIL is the sole source of books in their home. This includes what the public library has to offer. As Reigner notes in his analysis of the program, "for 34% of the households in a Tennessee study group, the Imagination Library program was the primary source of children's books. [...] a large percentage of [DP]IL families report almost never visiting a bookstore (35.3%) *or library* (46.3%)" (270, emphasis mine). The information coincides with Embree's findings which show "families living in poverty have fewer books in the home, and are less likely to purchase new books and *use the services of a public library*" (38, emphasis mine). Despite acting as a place, free and open to all, the public library has significant gaps that affect those who would benefit from it the most.

In the most in-depth analysis of the DPIL's effectiveness to date, Ridzi et al wisely call for early literacy skills to be examined as "a social phenomenon rather than a biological one" (551). As a social institution, the APL historically has not been a space inclusive of those people who would most benefit from sharing in the library's collection of books. The response becomes a counter system in the form of a book distribution program. A 1999 Department of Education reports states "that parents[19] were four times more likely to read aloud to their children when given free books and encouragement" (Reigner 268). The DPIL directly addresses this need. The consequences of not having the program are apparent: "Without easy, constant, and inexpensive access to texts, there would be no shared book experience for many of these children in the first place" (Reigner 268). The experience, as I explained above, is essential to a child's development.

[19] A major shortcoming of most research in youth literacy is the assumption that all youth-adult relationships are child-parent. For sake of readability I follow the convention of referring to the guardian as "parent." I remain mindful—and would like my readers to remain mindful—that many of the youth who can most benefit from literacy programs do not have a traditional parental figure.

While the DPIL acts as an effective counter system to the library's aporia with youth literacy—a way to catch the children slipping through the cracks so to speak—it does have its own shortcomings. First is the engagement of the parent. While the reported success of Middletown's outreach is encouraging, Ridzi et al note that the research has not examined whether or not the program is that successful when intervening factors are taken into account. They write that "Previous research suggests that age, race, income, gender, family income and parental reading all matter" (4). Surveys focus on families already engaged in reading, leading to inflated reports of success. As Ridzi et al note, "children who are strong readers come from families that value books and promote literacy activities such as reading aloud. However, not all families facilitate such print exposure" (549). Children at the earliest stages of literacy development "cannot navigate texts on their own; they must be taught how to utilize this resource through modeling in their daily lives" (549). The parent has to take an active role. Some parents might be motivated, but lack the skills to teach their children. The DPIL is sensitive to this issue and now provides French flap special edition books with parenting guidelines [Figure 7.1].[20]

[20] Of course the French flaps are only useful if the parent is motivated and literate. Engaging parents who are unmotivated and/or illiterate is a constant struggle for the DPIL.

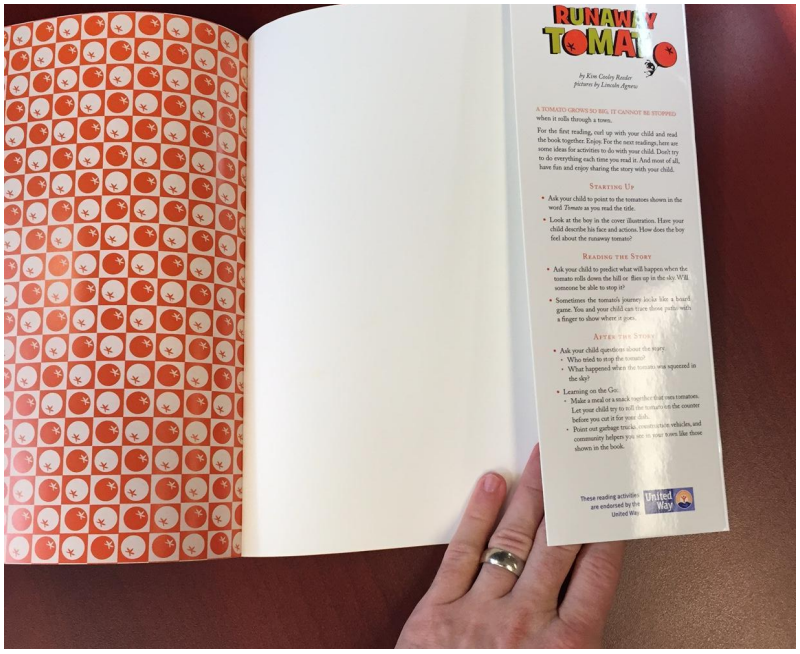


Figure 7.1

The DPIL edition of *Runaway Tomato* utilizes the French Flap cover design to give parents recommendations on how to make the most out of their parent-child reading time. Photo taken by author.

But the idea of reading out loud brings up a second issue—the family's heritage. Parton herself might be viewed as a Carnegie sort of personality—a white Christian who uses her personal wealth to act as benefactor to the economically disadvantaged. Though Parton does not have the vested interest in formulating a pliable working class, she still embodies a culture that echoes the Carnegie values of creating a culture of literacy as part of a brand development. Additionally, studies demonstrate that the idea of "story-book reading is considered a mainstream literacy practice that is significant for developing literacy skills, yet it is not a common literary practice among families from culturally and linguistically diverse backgrounds" (Ridzi et al 552). Though there have been a few (6-10) bilingual / dual language books (exclusively English and Spanish), the bulk of the texts are written completely in English (Reigner 270). Moreover, the number of dual language books "changes yearly depending upon their availability and cost" (270). The access to reading is solidly focused on English despite significant linguistic differences

across the USA.[21] In a way, this reinforces the same sorts of bellecentric thinking used to develop the collections for the Carnegie libraries. Furthermore, the absence of multilingual texts could be interpreted as a promotion of standard English.

The coalescence of heritage and cost are perhaps most apparent in Alaska's implementation of the DPIL through the public-private partnership program, Best Beginnings. (The use of an established non-profit partnership is often used to fund DPIL.) Thirty-one of the 111 DPIL affiliates fall under the Best Beginnings umbrella. Best Beginnings realizes the shortcomings of an overtly English-based literacy program in a diverse state. (Alaska's Anchorage is home to the US's most diverse neighborhood, Mountain View.) In 2008, Best Beginnings published activity guides in Spanish and the native language of Yup'ik (Best Beginnings 2010 Report to Alaskans, 7). The communities were active partners as "the Spanish and Yup'ik guides were developed with assistance from Spanish-speaking and Yup'ik advisors to ensure the activities are culturally and geographically appropriate" (7). The development of these guides serves as a sort of counter system to the DPIL—one that recognizes an aporia and addresses it. Like many counter systems, it does not detract from the work of the program, but rather enhances it. Despite significant success with the DPIL through Best Beginnings, the Alaska legislature dramatically cut its funding to the program in March of 2015. Several systems, including public libraries, the Dollywood Foundation, and local communities are currently lobbying for restoration of funding.

The most remarkable carryover from the Carnegie era is the value of the book as commodity. The DPIL strives to give children access to books in an effort to create a more egalitarian society; however, public libraries historically have been institutions meant to educate adults, whether in the system of the university or in the public. The focus on children as a demographic is a clear departure from the Carnegie era. Children's services librarians in the public library are often networked with the schools and literacy efforts. The counter systems are needed to work against the dominant structure.

[21] One additional point of access for the DPIL is its service to blind children. As part of "a collaborative effort between DPIL, APH and Penguin Group, USA, an ever expanding collection of titles will be available as free downloadable children's audio books and for those who prefer, there will be many titles available in braille from APH" (www.usa.imaginationlibrary.com). The materials for the seeing-impaired are provided free of charge.

The main obstacle to the DPIL appears to be its model of distribution, which closely aligns with the historical model set up by libraries—ownership of valuable commodities like books grants power. The next counter system I examine, The Little Free Library system, pays homage to the APL while subverting the idea of book ownership.

**Counter system 2: The Little Free Library**

In this section I examine two systems that operate outside of the library—the Little Free Library (LFL) and the Offline Library in the form of the Personal Portable Library. Both of these counter systems are patron curated. No degree in Library Science is needed. The rules for the LFL are minimal, while the Offline Library actively circumvents the law.

In the first half of this section I examine the LFL—its history, growth, and placement. I use the LFL located in my own historical neighborhood to preface the conversation. I then look at how the libraries are designed, placed, and then used by the community. The use of LFLs as *memorial* structures is examined at length. Also of particular importance is how they operate in concert with or in opposition to the public library. I conclude my analysis of the LFL by looking at how the small and seemingly insignificant structures affect not just our conception of memory, but also recover the body as a tool for memory.

In the second half of this section I look at the idea of the Offline Library—an opposition movement that calls for library patrons to copy texts and share them using less traceable technology (trading pdfs of academic texts on flash drives for example). Because the movement is resistant to the mechanics of the publishing industry and very much in opposition to the model of academic publishing, little has been written in any scholarly venue on the subject. I take Henry Warwick's book, *Radical Tactics of the Offline Library*, as my central focus. As with the former half of this section, I provide a brief personal introduction by recounting my exploration of a Western ghost town. I then move into talking about the history behind Warwick's system of sharing. Ultimately, the history of the Offline Library, when put into the larger historical context of library

systems, reveals it to be guilty of replicating the same cultural memories as the larger hegemonic systems.

**A personal introduction to the Little Free Library system**

I live in the historic village of Alpha in Greene County. In the late 1880s Alpha was the county seat with a booming seed and grain mill. Like many of the more successful towns of that era, it was located along the railroad tracks. A series of events—fires, politics, economics—changed the fate of Alpha and it became a sleepy little town of sixty-odd houses and nearby Xenia became established as the county seat. In 1979, Alpha was annexed by the growing city of Beavercreek. Today, Alpha retains its name, has its own ZIP code and post office despite officially being part of/annexed by Beavercreek. The mill still stands as a registered historic landmark and the weigh station has been converted into a museum (Figure 7.2). The railroad tracks have since been converted into paved bicycle paths through the Rails-to-Trails program.


Fig. 7.2

The Alpha Seed and Grain Mill with the weigh house (now museum) in the foreground. The bike path on the right was, at one point in time, a railroad.

Once the trains were no longer in use, the towns located along them dried up, died out, and were absorbed into other places. Goes Station, at one point a gunpowder storage facility, dwindled into dilapidation while Zimmermanville, also known as Push On, so named for the train passengers who decided to push on to the next stop, became downtown Beavercreek. Ironically, my village of Alpha only managed to thrive and maintain its autonomy by being absorbed into Beavercreek as the historic district.

When I tell people I live in Alpha, I often hear how they love passing through it on the bike trail, how it feels like stepping back in time. For those of us who ride the trails at length, the path is a study in county history. As I said, many towns thrived and died with the rail system. Each morning I jog through Trebien—a few run down houses

and a rail house with a rusted roof and moldered bricks. Sites like these little towns with their historic homes and crumbling buildings are common along the paths.

The Rails-to-Trails program has changed the awareness people have of their communities' histories. Knowing the history of the bike trails explains the sorts of landmarks one passes while running or cycling: abandoned grain mills, concrete obelisks with railroad markers imprinted in them, the steel frame of a dam in the Little Miami River. The history is evident in place and explains some of what I see around the county today. (Trebien, for example, shares its name the local elementary school and Trebien Road is said to be the oldest road in the county.) Now the people in these communities are adding their own landmarks.

This past summer the neighborhood organization, ALPHA (Alpha Landmark Preservation and Homeowners Association), announced it would build a Little Free Library in the park alongside the bicycle trail, directly across from the museum. (The small patch of land is called "Bud" Carter Park. Carter, according to neighborhood lore, took care of the land because no one, including the city of Beavercreek, knew who owned it. The land remains unclaimed, so ALPHA continues to maintain it.) When the design of the Little Free Library was unveiled, residents were delighted to see that it had been made to look like the Alpha museum [Figure 7.3]. Inside, the designer mounted a lithograph of the mill and museum [Figure 7.4].


Fig. 7.3

The LFL of Alpha is a miniature of the Alpha Museum.

Fig. 7.4

The lithograph located inside the LFL is of the museum and seed and grain mill.

Interest in the museum was immediate. As the mayor and a few neighborhood children (mine included) stocked the inaugural books, a family of cyclists stopped to check some out. They promised they would return the books further up the trail, at another Little Free Library in another small town.

In chapter 5 I discussed the importance of library placement within a community by examining both the location of the physical library in relation to the other buildings in the town as well as how the library is represented as central in popular media. Like the Great Library of Alexandria from chapter 3, these designs create a locus of power and leave space or gaps elsewhere. What I find interesting about the Alpha LFL is its location outside of other structures and its relationship to lesser-known (and reclaimed) histories. As mentioned, Alpha is a small annexed village with forgotten lands like Bud Carter Park. The bike trail itself is reclaimed by the county and repurposed into a bicycle path.

The use of the bicycle path then reinvigorates interest in forgotten places like Alpha and creates a form of circulation that combines with the LFL. Essentially we have two interfaces—the bike trail and the LFL—interacting with each other.

In this first case study of the LFL as a counter system, I examine these structures as interfaces that overlay a variety of contexts from public parks to abandoned inner city buildings. I examine how they interact with their contexts and subvert them. I also examine the ways in which larger memory structures, including some public libraries, have used them to reinforce or subvert their own structures.

**Little Free Libraries as place**

In Terry Eagleton's *The Function of Criticism* he describes eighteenth century French coffee houses as "rallying points" for a "membership that was entirely heterogeneous" (13). The heterogenity of the membership though was not so broad as to include women or laborers, servants or farmers. Rather, the membership was a variety of bourgeois: "politicians, diplomats, lawyers, theologians, scientists, physicians, surgeons, actors" (13). The coffee house became a place of shared thoughts, where political opinions were debated and formed and ultimately reified. The idea of intelligentsia gathering at the coffee house is perpetuated in culture today with book club meetings, author visits with question and answer sessions, as well as the partnerships between Starbucks and Barnes & Noble. Many non-chain coffee houses also have "leave-a-book, take-a-book" collections—a way for the intelligentsia to exchange ideas without the face-to-face interaction. While this sort of book sharing program could merit its own section, I want to concentrate on a more organized program that grew partially out of the coffeehouse model and more closely relates to my focus of study, the Little Free Library (littlefreelibrary.org).

Founded in 2009, the Little Free Library (LFL) was a collaborative effort between handyman Todd Bol of Hudson, Wisconsin, and Outreach Program Manager, Rick Brooks of the University of Wisconsin. The first Little Free Library was a small model of a one-room schoolhouse made for Bol's mother and filled with books and mounted in her front yard. He made several more for friends and family, before working with Brooks to turn the venture into a global non-profit organization. With the help of extensive media

exposure the Little Free Library had over 400 locations by the end of 2011. Presently, the system has over 28,000 locations worldwide, far surpassing the original goal of building 2,510 (the number of libraries Carnegie constructed).

My interest in the LFL as a counter system stems from its rootedness in place. As previously discussed, the idea of place is essential to memory. With the LFL, I am interested in the ways these small places affect collective memory. Because there is so little research about the LFL and libraries are generally ignored in rhetorical studies, I am using an interdisciplinary approach that involves the intersection Human Geography, Anthropology, and Law. Human geographer Tim Cresswell writes that "collective memory is often made concrete through the production of particular places but this production of memory in place is no more than an element in the perpetuation of a particular social order that seeks to inscribe some memories at the expense of others" (62). The LFL as a structure placed in the context of a community interacts with larger, more monolithic memory systems in unique ways—first by drawing attention to its surroundings and secondly by creating its own publics. The circulation of its materials also subverts the model instilled by the APL.

**Little libraries in the context of place**

In the previous section on the DPIL, the issue of heritage became a concern. Heritage, it appeared, might be forgotten or ignored through the distribution of texts by the DPIL. Cresswell writes that "all around us there are efforts underway to make places more distinctive and visible and provide a sense of pride and belonging. [...] This takes the form of 'heritage' where a sense of rootedness in the past and in place is provided for the consumption of locals" (Cresswell 60). Heritage as a form of memory is intrinsically bound to place. Indeed, the creation, placement, and design of LFLs is meant for local populations as a marker of heritage much like it was used in my village of Alpha. The story of the first LFL mirrors my community's story on several levels:

> The first official Little Free Library outside the Hudson area was posted by a bike path behind the Absolutely Art Gallery and Café Zoma on the east side of Madison in the summer of 2010. By the time of the Willy

> Street Fair in September, thousands of people had seen the Absolutely Art Library. The process of giving away Bol's creations began to require a way to cover expenses to build many more than he could handle by himself. Amish carpenter Henry Miller of rural Cashton, Wisconsin became the primary craftsman, using wood recycled from a 100 year-old barn destroyed in a tornado. (littlefreelibrary.org)

Cresswell notes that "places do not come with some memories attached as it by nature but rather they are 'contested terrain of competing definitions'" (62). Just as the public library building competes in the cityscape so that it can be "skim-able" from the interstate (Mattern, *Downtown* 75), the LFL has to compete and coordinate with its surroundings to develop a community. In the above anecdote heritage becomes the raison d'etre for the LFL into the larger landscape of Huron, Wisconsin. The anecdote also reveals two ties to heritage—one through placement of the LFL and one through its construction. (A third tie—to the materials placed within the structure—is not discussed in this anecdote, though I will discuss this aspect later.) Cresswell notes how "place is often seen as the 'locus of collective memory'—a site where identity is created through the construction of memories linking a group of people into the past" (61). The placement of the LFL on a bike path by an art gallery is a strategic choice as is the way it was constructed. Together, these decisions create a public for the LFL as well as define the community around it.

**LFLs as *memorial* sites**

The materiality of the first LFL is important. The decision to craft the library itself from century-old wood saved from a disaster turns the LFL into a *memorial* site of sorts. As a place of memory, it "proposes a specific kind of relationship between past and present that may offer a sense of sustained and sustaining communal identification" (Dickinson et al 27). Just as with large-scale libraries like Seattle, the material of place matters a great deal. The tie to place according to Dickinson et al "mobilize[s] power because they are implacably material" (29). The LFL, as with most sites of memory is "composed of and/or contain[s] objects, such as art installations, memorabilia, and historic artifacts" (29). Indeed, the tiny box library made from century-old boards

containing the books of a community is both composed of and contains the objects of local memory. In Alpha, the LFL's tie to the museum is seen in its construction as well as the lithograph inside.

Anthropologist Arturo Escobar's work examines the link between place and social movements. In his research Escobar comes to the conclusion that "cultural models and knowledge are based on historical, linguistic, and cultural processes that, while never isolated from broader histories, nevertheless retain certain place specificity" (151). In other words, the past cannot be completely forgotten; likewise the system it was born from cannot be erased.

The creation of the LFL as a *memoria*l is deserving of "special attention because of its self-nomination as a site of significant memory of and for a collective" (Dickinson et al 25). Though the LFL's collections are small in terms of volumes held, the creation and placement of the LFL speaks volumes to the community. The ties to the past are strong with many of the LFLs being "driven by nostalgia; they lament the loss of tactile media, of real-time, face-to-face social interaction, of visible print-based public sphere" (Mattern, "Marginalia" np). The desire to harken back to traditional (or romanticized) ideas of community-based book sharing demonstrates Dickinson et al's statement that memory places "do not just *represent* the past. They *accrete* their own past" (30).[22]

[22] A purely anecdotal incident occurred with the chosen spot for the Alpha LFL: The official stamp of the LFL—a tree, bench, and an LFL on a post—nearly mirrored that of Alpha's creation of place. The neighborhood designers denied any deliberate attempt to stage it this way. Perhaps it just speaks to the nostalgia [Figure 7.5 and 7.6].


Fig. 7.5 and 7.6

The placement of the objects in the Alpha LFL (right) mirror that of the LFL's official stamp (left).

As with all forms of memory studied within this dissertation, what is remembered is not necessarily an accurate reflection of the past. Memory is malleable, being reshaped by various societal forces—many of them hegemonic. LFLs enter into this contested realm of defining the local community in relation to the larger structure it came from. Communities construct *memorial*s as ways to alter and cement a version of memory as history. LFLs are no different. As we will see in the next two sections "the uses to which

the visitors put *memorial* sites make, remake, and unmake the imposed structures of power" (29).

**LFLs as resistant structures**

James Boyle describes what he calls "the second enclosure movement"—a power grab of information in the digital age to partition off intellectual property from the commons. His metaphor here is linked to the first enclosure movement of the eighteenth century English countryside— "a conversion into private property of something that had formerly been common property or, perhaps, had been outside of the property system altogether" (34). The transference of land helped to avoid the "tragedy of the commons"—the overuse and underinvestment in property (35). Ideally, the rich had the resources to act as financial stewards of the land, develop it, and make it a viable property that would benefit everyone, including the laborers. One might very well see Carnegie's philanthropy and Dewey's promotion of best books as a form of enclosure. The APL, like Alexandria before it, is the dominant, enclosed system.

The placement of LFLs as a public space, a structure inviting the public to interact with it and share materials for free, seems to undercut the idea of enclosure movements. The space is opened up to the commons with many LFLs residing on private property and being maintained by private stewards (like ALPHA) using non-tax monies. Many operate in areas of questionable control and inadvertently deal with issues of power. For example, Mandy Henk, who volunteered at the Occupy Wall Street pop-up library (a type of small library closely related to LFLs) in Zuccotti Park laments how librarians have "lost more and more control over budgets and collections. The information resources that people need are controlled by corporations, while we keep getting hit by the push for austerity" (qtd. in Mattern, "Marginalia" np). By participating in the Occupy library, Henk says she is able to regain "the power to create collections and to define what a library is for" (np).

The material commodities housed in the LFL are also returned to the commons with the circulation model based on the aforementioned coffee house honor system of "take one, leave one." Even the influence of the publishing industry is diminished "because members are encouraged to donate not only used publications but also 'self-published zines, comic books, [and] manuscripts'" (np). With many traditionally-

published titles, "little library founders and patrons aim to transform books that were purchased as commodities into resources for the local commons" (Mattern, "Marginalia" np). Escobar notes how "places might be seen as self-consciously constructed by people through active processes of work, narratives, and movement" (148). With the LFL (and its micro library cousins), the place created is a new commons for the public.

Ultimately that is what LFLs do—they return the power of book collecting to the commons, whether it is the librarian who has lost control to bureaucracy or the public who has been stifled by the DDC. Mattern notes how these micro libraries can be "spaces of experimentation, where new models of library service and public engagement can be test-piloted, or where core values can be reassessed and reinvigorated" (np). The libraries also push against the larger structures of power in urban settings in "an effort to reclaim—for the commons, for the sake of enlightenment—a small corner of public space in cities that have lately become hyper-commercialized, cities that might no longer reflect the civic aspirations of a diverse public" (np). Cresswell notes how "on the one hand investments in place can play a role in resisting the global circulation of capital but on the other it is often quite an exclusionary force in the world where groups of people define themselves against threatening others who are not included in the particular vision of place being enacted" (62). Indeed, the LFL can fulfill both roles—as a form of resistance against the larger structures, but also as a form of reinforcement (which is not always bad, as we will see).

**LFL as cultural reinforcement**

By virtue of the LFL's size and economy, they can hack the city, slip into the cracks. Syracuse, New York, has a number of LFLs installed in old wall-mounted telephone boxes [Figure 7.7] (Collen 6). Labeled as one of the least literate cities[23] in the USA, El Paso has made use of the LFL and developed a "network of Little Free Libraries [that] has given children in that community the experience of book ownership"—a goal

[23] "Literacy" in this case is used in a more conventional, or as linguistic ethnographer Brian Street would say, "autonomous" model—a model that "disguises the cultural and ideological assumptions that underpin it so that it can then be presented as though they are neutral and universal and that literacy as such will have these benign effects" (77). In recognizing the troubling ways in which "literacy" is used in Collen's article, I personally subscribe to a New Literacies approach that "posits instead that literacy is a social practice, not simply a technical and neutral skill; that it is always embedded in socially constructed epistemological principles" (77). For the purposes of this section though I make an exception to prove the larger point.

congruent with that of the DPIL (Collen 6). Where building a public library could have provided a hub of activity, we have also seen the public's resistance to them as hierarchical structures throughout the history of the library, the construction of some public libraries even alienating their publics. As Mattern stresses in her article, LFLs work is not in opposition to the APL, but rather as "ancillary to the public system, reminding people of the value of traditional libraries, and perhaps inspiring sustained citizen response to the atomization and privatization of cultural life and inadequacy of public resources" (np).[24]

In many cases, the public library works in coordination with LFLs. The Cleveland Public Library (CPL) has adopted LFLs as part of its mission to reach patrons outside of its traditional locations. Felton Thomas, the director of CPL, sees the LFL as giving "the public library the opportunity to be visible in every single part of the community. This opportunity will create more readers, and more readers mean more public library patrons" (Collen 8). Each of the CPL's LFL locations will be stocked with library brochures and applications. Programming centered around LFLs is also planned as part of the CPL's outreach (8). Similarly, the Seattle Public Library system has embraced the LFL movement in their city, which now has 23 registered LFL locations. Chance Hunt of the Community Partnerships and Government Relations division of the Seattle Public Library notes that Seattle's "public libraries view the little book boxes as a complement to what they provide" (Lacao np).

Fig. 7.7

[24] It should be noted that LFLs only provide book collections. Many public libraries are now service-based with librarians offering computer classes, craft programs, and genealogy research help. Volunteer organizations also operate out of the APL space to provide tax help, tutoring, and job training. The significance of the LFL in terms of this project is how it pushes back against the memory structure of the APL.

A phone box Little Free Library in Syracuse, NY. Photo from "Little Free Libraries," *Salt District*; saltdistrcit.com; March 8, 2012. Web. March 31, 2016.

The idea here is that LFLs will drive participation in the APL. By introducing books to the hardest-to-reach demographics via these embedded venues, the public library with its larger, more stable (and organized!) collection will gain appeal. The idea is akin to Henry Jenkins' notion of spreadability he describes at the onset of his book, *Spreadable Media*. Though Jenkins is examining spreadability as a digital phenomena, his definition also fits a material, place-based model:

> "Spreadability" refers to the technical resources that make it easier to circulate some kinds of content than others, the economic structures that support or restrict circulation, the attributes of a media text that might appeal to a community's motivation for sharing material, and the social networks that link people" (4).

By design, LFLs are easy to access and rules are simple. In Jenkins' theory, "spreadability emphasizes producing content in easy-to-share formats" (6). The LFL is essentially an easy-to-share format—a box with books.

As with all the library ideologies examined in this project, there are gaps. In this case, the gap becomes the LFL patron and how they use the library.[25] The "participatory logic of spreadability leads to audiences using content in unanticipated ways as they retrofit material to the contours of their particular community" (Jenkins 6). The way in which the content and structure interact with the community can at once, reinforce and subvert collective memory. It is as Carole Blair says: "*Memorial* sites, by their very existence, create communal spaces. Although it is possible to describe an individual's encounter with a site, it is almost always part of a collective experience" (48). In order to see how the LFL acts as a memory system, we cannot examine individual sites. Rather,

[25] One might turn the conversation toward vandalism and misuse here, but that pulls the conversation away from the LFL as memorial tool and into discussions of policing. That said, the statistics on LFL vandalism are quite low—less than .01% (littlefreelibrary.org). Perhaps the astonishingly low rate of vandalism can be attributed to the book-as-sacred object effect. And for those LFLs that have been vandalized, the LFL website offers a "Rebuild and Revitalize" page with tips on preventing further misuse.

we have to see them as connected and active—as a network. Indeed, the telephone system, once used to connect people orally is now a point of circulation in much the same ways the LFL overlays the defunct railroad system in Greene County.

**LFLs as networks**

For many people finding an LFL is a pleasant discovery. They happen upon them in unusual or convenient spots. In my historic neighborhood, the LFL is located at the intersection of the bike path and the main thoroughfare by the post office. At its opening several bicyclists stopped to check out books, commenting that they would return the books to another location somewhere else on the trails at a later date. A more purposeful way of seeking out LFLs is provided by its website, littlefreelibrary.org. The website provides an interactive map of all the registered LFL locations [Figure 7.8].

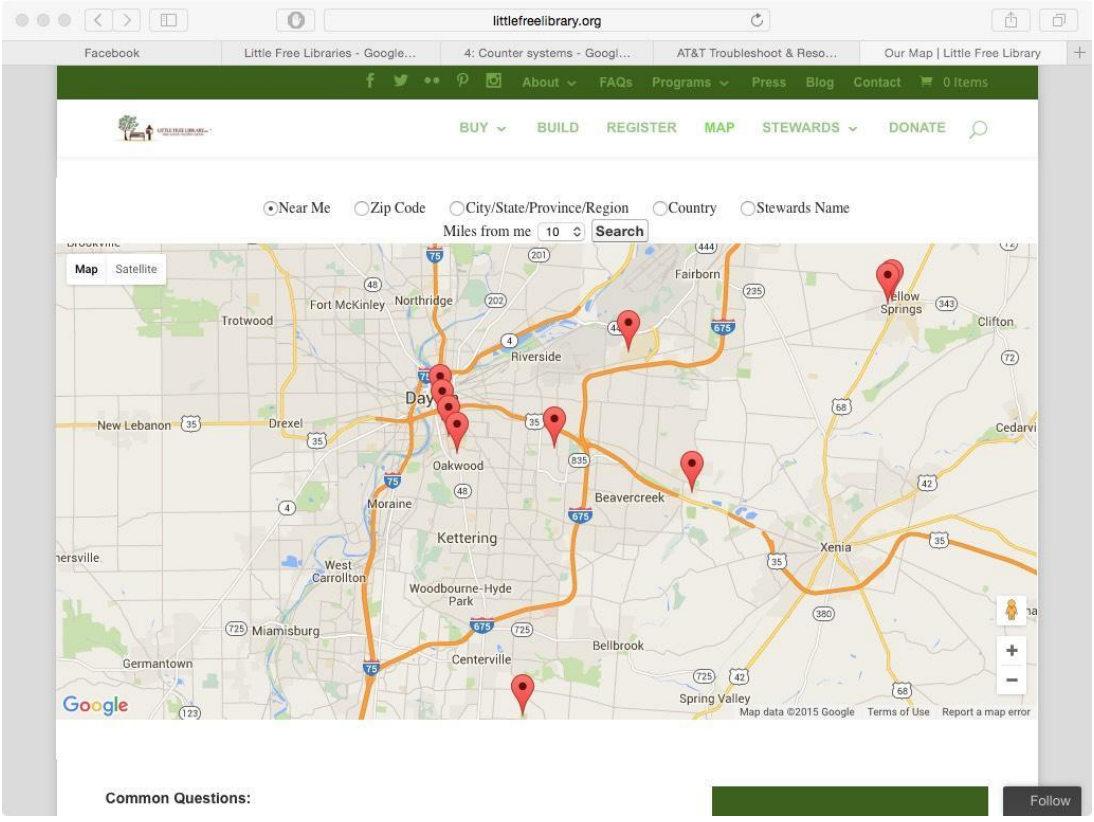


Fig. 7.8

Screenshot of the interactive map provided on the Little Free Library website.

In examining the LFL as network, the rhetoric-based definition provided by Sheridan et al foregrounds the idea of mobility: "Network is consonant with our understanding of kairos as involving a complex configuration of relationships between rhetors, audiences, places, and contextual resources and constraints at a particular moment in time" (14). The LFL as system is fluid, with patrons, contexts, and texts shaping the collective experience and memory of those involved. The network created by these relationships "can be seen as apparatuses for the production of discourses and practices that connect nodes in a discontinuous space; networks are not necessarily hierarchical but can in some cases be described as self-organizing, non-linear and non-hierarchical meshworks" (Escobar 169). While all the LFLs are connected through the online map interface, they might not all have the same goal. They might not all overlay the same memory systems. Certainly the LFL in my village of Alpha differs in terms of memory system from the phone booth LFLs of Syracuse. Where Alpha and the LFLs located along the bicycle trail recall a sense of local history in a county already replete with access to books,[26] the placement of an LFL in Syracuse has the stated purpose of introducing books into an area where they are not as common.

Additionally, the users might not share the location's (and the creator's) agenda of resistance and/or reinforcement. The materials stocked by the curator and traded by the patrons might conflict. An LFL curated by the local Democratic Party headquarters might initially be filled with left-leaning literature only to be restocked by its patrons with conservative literature and Ayn Rand novels. Or quality of material might come into play. Users might take the more valuable hardbacks from the library and leave a trade paperback in its place on a regular basis. (The honor system of the LFL says "Leave a book, take a book" without any other designations.)

The dispute over subject matter or the quality of the book itself might seem petty, but these conflicts are important for demonstrating the relationships between materials, users, and place—not to mention they are the same conflicts that shaped the APL system in the nineteenth and twentieth centuries. Moreover, the conflict can be used to highlight the gaps in the structure and where transfer might happen. For Escobar, "places

[26] Greene County is home to a seven-location library system. Several of the libraries are located in proximity to its ample bicycle trails. Additionally, the county has is home to many higher education institutions and a number of large-scale book stores.

concatenate with each other to form regions, which suggests that porosity of boundaries is essential to place, as it is to local constructions and exchange. Locality, in this way, becomes marked by the interplay between position, place and region; by the porosity of boundaries; and by the role of the lived body between enculturation and emplacement" (143-44). Libraries have paid much attention to the structure of the building and the materials they contain whilst eschewing the importance of the patron. With the LFL, the body is paramount to how place and material interact.

**LFLs as embodied experience**

The online map is a superficial interface since the user is not taken into account. In describing the complexity of postmodern interfaces, Johnson-Eilola writes that users must "gain the ability to cognitively map themselves in relation to vast and contingent information spaces—a simultaneously necessary and impossible task, more of an ongoing process than a goal" (70). He goes on to simply note that this type of work "requires a much larger and more complex information space than can be supported by the computer alone" (73). The people of the LFL—the users, curators, even the community members who provide context of their own—are part of the network. Where traditional library structures tried to maintain their collections as separate from the patron, the LFL embraces the messiness and instability of usership and circulation.

In these smaller systems there is a return to the Classical forms of embodied memory—of the relationship between the patron and the place. The parts are interrelated with place "constituted by sedimented social structures and cultural practices. Sensing and moving are not presocial; the lived body is the result of habitual cultural and social processes" (Escobar 143). LFLs work because they take into account the patron as a human body capable of sensing and moving about in the world. Just as the body became secondary to the mind with the dawn of Cartesian thinking, the library user became secondary to the APL through its institution of the DDC. The exclusion of course is echoed through physical design of Carnegie libraries. LFLs put the user and the issues of mobility and access for the individual back at the fore of librarianship by acknowledging the user as a body with agency existing in other contexts outside of the library structure.

Both a public library and an LFL do require movement of the body;[27] however, the public library is essentially movement through a cognitive space—a set of loci mnemonics and designs aimed at reinforcing memory. The texts in the public library generally do not interact with the patron as anything other than a patron. Meanwhile the LFL works within contexts as a mnemonic. The location, placement, and circulation of LFL depends upon the movement and memory of its patrons, not the instantiation and reification of a memory system.

Building off the work of Foucault, Michel de Certeau examines the agency of individuals in the complex systems of modern and urban spaces. In his prefacing discussion of tactics used to study these environments, he writes of the paths etched out by consumers of space (xviii). For de Certeau these "trajectories trace out the ruses of other interests and desires that are neither determined nor captured by the systems in which they develop" (xviii). The paths show more than mere movement; they reveal habits and societal forces, the underlying systems of memory.

The placement of an LFL along a bike trail (whether it is in Alpha, Ohio, or Huron, Wisconsin) allows us to see some other network at play. As I mentioned in my introduction to this section, the trail system itself is a form of memory (the "trail system" of the railroad) meant to reconnect various municipalities. The benign actions of bicyclists and early morning walkers, the placement of the LFL, have tremendous impacts on the collective memory. Because the actions are small and take place in Alpha, they tend to be overlooked. (Not every library visit can be to Seattle's book spiral!) Tom Hall, an urban ethnographer echoes de Certeau in (re)assessing the value of everyday actions that are "decidedly local" including

> the small and (seemingly) trivial practices and movements that constitute the urban everyday. Routine urban undulations—mundane reoccurrences, people and objects making the rounds and doing the usual, practices started over and over again—are as much a part of the flow of the city as

[27] Actually, this is an overstatement. Only an open-stack library allows the patron to ambulate amongst the texts. While most public libraries in the US are open stack, there are some notable exceptions like the New York Public Library's main branch.

> are translocal circuits of movement, and, as such, equally disruptive of a seditarist social science. (574)

As Hall notes, we should not, "insist on or establish a binary opposition–fixity and location as against space and motion" (574). Anthropologist Tim Ingold likewise cautions us against the Cartesian privileging of cognition over locomotion in what he calls "head over heels" thinking (331). The LFL merely highlights a practice that is elided in library studies, one that focuses on the locomotion of heels—walking.[28]

**Walking as an embodied memory practice**

De Certeau likens the act of walking to that of the other embodied and forgotten form of rhetoric—speech (97). He specifically looks at the literary devices of synecdoche and asyndeton in relation to walking. Asyndeton, through its occlusion of linking words, "practices the ellipses of conjunctive loci" (101). Synecdoche, meanwhile "replaces totalities by fragments" and "opens gaps in the spatial continuum, and retains only selected parts of it that amount almost to relics" (101). The ellipses and gaps in space are created by the chosen trajectories of the patron. As people walk through the collected works of the written word, they are composing a space themselves. In this short section I want to use the everyday practice of walking—often seen in traditional library studies as "browsing" or "wandering the stacks" (Twidale et al)—to connect the LFL to another counter system that requires networking but wants to leave minimal traces of trajectory, the Offline Library.

Both the LFL and the Offline Library depend on the agency and mobility of their users/patrons. Walking is essential to the operation of libraries. The practice of walking is a way of "recognizing that place, body, and environment integrate with each other; that places gather things, thoughts, and memories in particular configurations" (Escobar 143). For the open-stack APL, walking is necessary for the patron to locate a particular material, a particular memory. For the smaller networked system of libraries like the

[28] I use "walking" while acknowledging the marginalization it might cause. Cresswell notes that walking is often imbued with masculinity (21). Cresswell also notes the societal imperative to "fix" people who are unable to walk as if walking is what makes them human (21). I use "walking" then to mean the moving of the body from place to place by its own agency.

LFL, mobility is paramount to reach those same ends. But movement happens in more than a purely physical sense. With the LFL, we have to take into account two sides involved with mobility—the digital interface (the LFL map) and the physical location.

As a patron uses the map—presumably on a smartphone—to find an LFL location, the body responds physically by walking. The interplay between user and interface is important "for surely we walk, just as we talk, write and use tools, with the whole body" (Ingold 332). The user then must toggle between spaces—the digital interface and the physical space—to locate a memory within place. The act of locating, as we have seen in the history of libraries, is not the work of an individual author. This is even more true with the mobile interface. As Farman writes, "The mobile interface can become a collaborative space… [U]sers can work together to create mobile representations that inform the lived space they traverse. In doing so, the digital space of the mobile device corresponds and permeates the material space in meaningful ways" (53). Ingold describes the cognitive process of learning from walking as "circumambulatory knowing" (331). He describes in a poetic fashion the way in which "pedestrian movements thread a tangled network of personalized trails through the landscape itself. Through walking, in short, landscapes are woven into life, and lives are woven into the landscape, in a process that is continuous and never-ending" (333).

But leaving a trail and contouring the land, leaving a physical mark, is something other systems of memory want to avoid. Sharing information is important, but the trajectories of its users need to be forgotten. A model of this sort of collection is Henry Warwick's idea of the Offline Library.

**Counter system 3: The Offline Library**

In this section, I am highlighting the undertheorized idea of the Offline Library. Not enough research has been conducted on the amorphous, mostly ideological book sharing system of the Offline Library. I include it here because it acts as a cautionary tale for reactionary memory structures. I extend my conversation about the Offline Library examining other counter systems like Tor and dark web sites. After providing a brief personal anecdote to highlight some key points, I outline how Warwick conceives the Offline Library, its roots, and underlying theory.

A Personal Introduction to being off the grid

Talk of "going off the grid" has entered the common vernacular as the ability for a person to be out of reach or contact for a period of time. If we leave our job for a vacation or refuse to answer our phone, we might tell people we are off the grid. More than likely "the grid" is that of longitudinal and latitudinal lines on a map. And even more likely is that we are not actually off the grid—offline, maybe. In uncharted territory, not really.

In the spring of 2008 I went out to Utah with some antique maps, circa 1888. I had compared the older Utahan maps to those of modern-day Utah and of course found striking differences. The boom towns of the railroad and mining industries were marked on the older maps, but were nowhere to be found on the newer maps. This of course did not mean a town listed on the 1888 map ceased to exist; it meant that it was now a ghost town. [Figures 7.9 and 7.10 compare the two maps.] So I went in search of some of these ghost towns—a venture that took me off the grid technologically and physically.

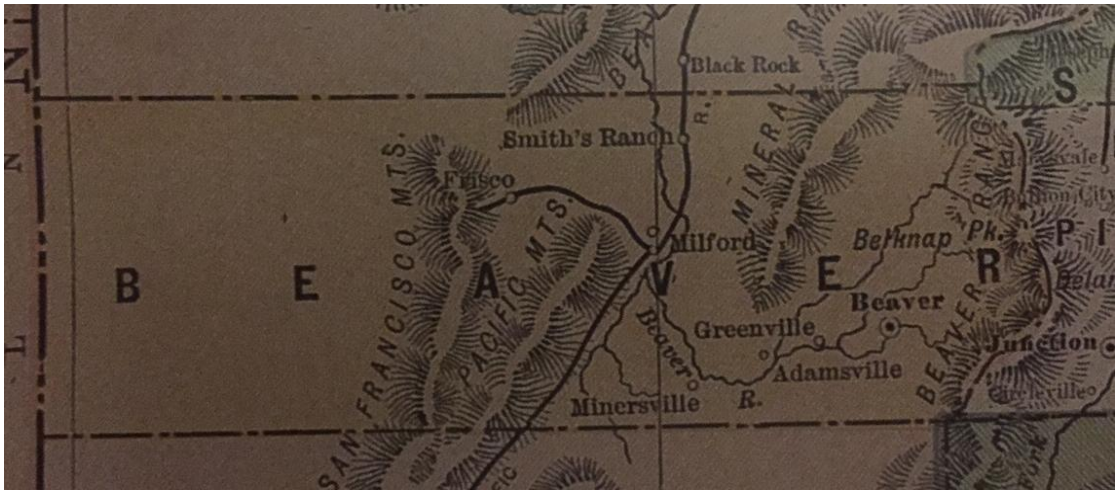


Fig. 7.9

The 1888 map of Beaver County shows Frisco. Photo taken by author.


Fig. 7.10

The Google map of Beaver County, Utah in contrast to the 1888 map [Fig. 7.9] is notably more devoid of mining towns, specifically Frisco. (Though it should be noted Frisco Peak is marked.)

The most prominent of the ghost towns I visited is Frisco. The little town of Frisco was a mining settlement, and at one point in time, it could boast two dozen saloons and a population numbering around 6,000. The town has a fabulously rich history that is the stuff of Western lore. The infamous Butch Cassidy and his earliest associates had interactions in Frisco. And showdowns and shootouts were so commonplace they had a morning body pick up. Yet, a trek across Beaver County, along Highway 21, only reveals a modest historical marker that gives a few sentences of Frisco's history concluding with "By the 1920's only memories and the shifting sands were left" [Figure 7.11]. Indeed, at the historical marker there is very little to be seen. A few beehive kilns that sat out from Frisco are on BLM (public) land; but most of the ghost town is actually located on private property (which allows visitors). Current maps will not have the town marked, but it certainly exists.

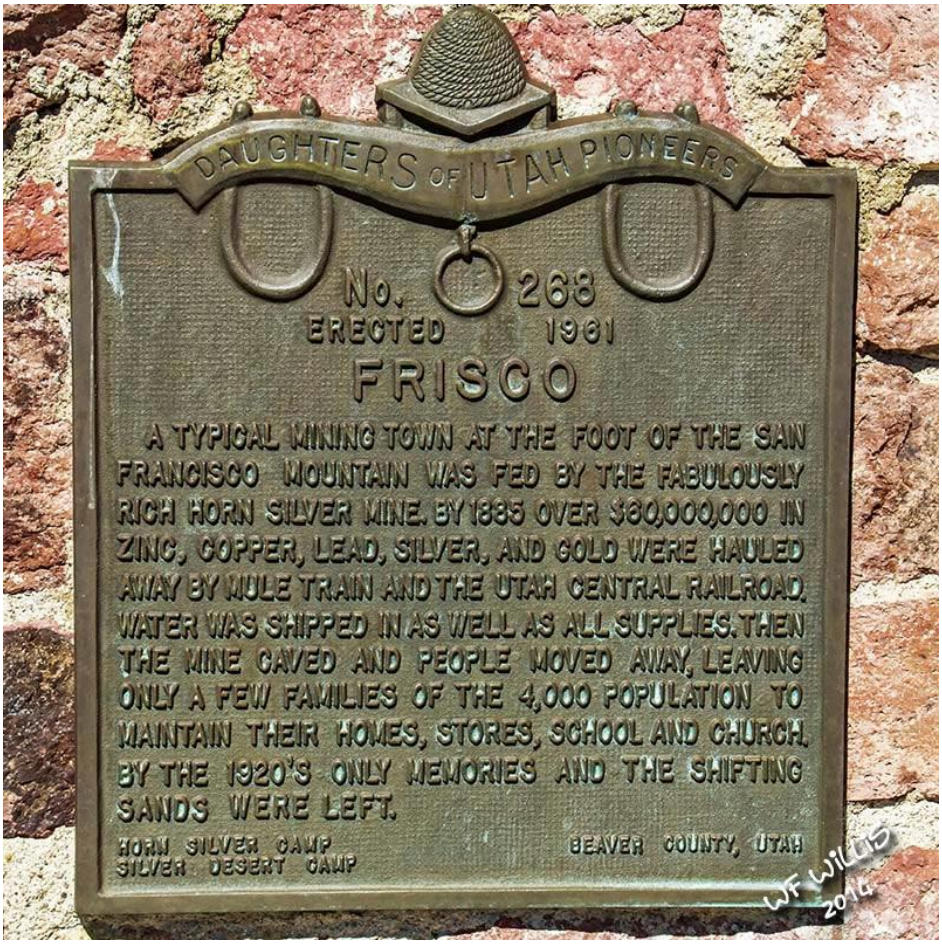


Fig. 7.11

The Frisco historical marker. Photo from "Frisco, Utah" silverstateghosttowns.com. Web. Jan. 4, 2016.

So what do ghost towns have to do with library systems? They are forms of memory that at one time were cataloged and accessible. Now they are forgotten to the shifting sands of the desert. They are in a literal sense, sites of deserted memory. We cannot hope to learn the lessons put forth by ghost towns (the ephemeral nature of settlement, the curve of economic development, the non-sustainability of boom towns, etc.) without revisiting them. It takes a layering of resources to arrive at these insights, not a simple wandering off the grid.

Similarly, the going "offline" to preserve memories (the main idea put forth by Warwick, which I discuss momentarily) is foolhardy. The LFL might operate outside of library structures, but it does not eschew its surroundings or context.

**The Offline Library**

In the opening pages of his manifesto, *The Radical Tactics of the Offline Library*, Warwick declares the modern library to be a "numbers game" (7). More accurately, he reduces the modern library to an economic model by equating the written work to information size (one megabyte equals 500 text pages [7]). He then prices out the hardware necessary for storage—a 20 terabyte flash drive—which costs at the time of his writing in 2014, about $2000 (7). If saved as text files, the entire Library of Congress collection, he claims—the largest library ever created—could be stored on one of these flash drives. He goes on to note that many libraries contain only a fraction of what the Library of Congress houses. The average large collection of 500,000 books then could fit on a 2.5 terabyte flash drive, which costs roughly $180.

Warwick contends that someone with a flash drive filled with books holds enough information to change the life of another individual (8). So what is keeping everyone from sharing these life-changing flash drives en masse? Warwick says the surplus of data "is materially contextualised in computer systems, and as such it is also 'gated' by access to electricity and the intellectual property regime of proprietarian capital" (8). The verbiage here is telling since the digital information is still tied to the idea of property in a physical sense. Warwick does acknowledge the existence of online file sharing, but notes that such resources are "precarious" (i.e., they can be taken down or deleted). The information Warwick feels belongs to the commons has been enclosed or can be enclosed, leading to people finding a workaround in the form of offline file sharing.

Though he flatly rejects the idea, what Warwick proposes is akin to what many term as piracy.[29] I am including the Offline Library and its movement of Personal Portable Libraries because it represents a counter system that purposefully excludes the dominant system. In hoping to work against the strictures of print capitalism, the commodity is merely replaced, and the subjugation of texts continues in a different form. In short, the replacement of the dominant system, even by a system that runs counter to it, will reify the same power structures it came from. Without layering the systems one on

[29]Warwick makes the case against using the term "piracy" because it connotes a violent seizure of property (9-10).

top of the other, there is little hope that gaps in memory can be illuminated. My goal is to not become embroiled in a debate over the definition of piracy, but look at the practices commonly labeled as piracy and see how they act as counter systems.

**The personal portable library**

The offline file sharing system in the 1990s was known as Sneakernet—a rudimentary system whereby "someone with data would put it on a floppy disk, and *walk* it to another computer" (8, emphasis mine). By sharing flash drives full of information—full of books—a new idea has emerged in the form of the Personal Portable Library (9). Warwick subscribes an historical model of libraries that differs from my own views and research:

> The Personal Portable Library doesn't only refer to Sneakernet, but to the key function libraries had for thousands of years prior to the invention of the printing press: Libraries as centers for copying data. Libraries as warehouses where books are stored are a comparatively recent phenomenon. A Personal Portable Library takes the contemporary notion of warehousing knowledge to the hard drive and feeds into its own history. (9)

While I do not disagree that libraries have often used been used as copying centers, the main purpose of Western libraries has been collection or storage, a vault of valuable material commodity. The copying and sharing of files, Warwick says, is a way to promote egalitarianism by giving people access to knowledge. But the access is also predicated on mobility—the ability of people to gather and share information. This would require a certain modern-day coffeehouse—an issue Warwick does not directly address.

Warwick cites the work of Aaron Swartz as his inspiration for developing the personal portable library system. In his 2008 *Guerilla Open Access Manifesto*, Swartz notes the way in which access to journals and the knowledge they house had been stymied by publishing companies in the name of economic profit. He then in turn calls readers to action:

> Those with access to these resources—students, librarians, scientists—you have been given a privilege. You get to feed at this banquet of knowledge while the rest of the world is locked out. But you need not—indeed, morally, you cannot—keep this privilege for yourselves. You have a duty to share it with the world. And you have: trading passwords with colleagues, filling download requests for friends. (np)

One can easily see the link between Swartz's call for civil disobedience and Warwick's network of personal off-the-information-grid exchange of copyrighted material. By the end of his manifesto, Swartz calls readers "to take information, wherever it is stored, make our copies and share them with the world" (np). In 2010 Swartz practiced what he preached and bulk downloaded archives the JSTOR database on MIT's network, a violation of their terms of service.[30] The approach, it seems, is not entirely dissimilar from the Alexandrian method of manuscript seizure, copying, and cataloging described in chapter 3, but the ends—how the library they each developed would be used—are markedly different. Swartz is an online folk hero, who fought for egalitarian access to information whereas Demetrius of Phalerum was trying to amass a great collection of texts for the might of empire. Darnton notes a similar phenomena in 1707 when the king of France tried fruitlessly to enforce the grace by which he issued copyright. As a separate sovereign nation, Switzerland ignored the laws and bought uncopyrighted texts produced in Prussia. The king of Prussia "was free to publish whatever he pleased. From [the Swiss] perspective and his, he was not a pirate but a pillar of society" ("Science of Piracy" 4). Of course, the cheaper editions also found their way into the Parisian book market along with other forbidden titles (4-5).

The difference according to those involved in the act of piracy is that of power relations—who is allowed to own and share knowledge. Warwick defines the Personal Portable Library in relation to the Alexandrian Library as "a kind of amplified socio-political inversion of it, in that the Alexandrian Library was a product of forced tribute to

[30] It pains me to reduce Swartz's, or any human's life, to a footnote. But the rest of his story is this: Charges were pressed and Swartz faced up to 35 years in prison. The prosecution used Swartz's manifesto as evidence against him. In January of 2013, Swartz committed suicide at age 26.

a central repository, while a Personal Portable Library is a library that exists precisely to be curated, copied and shared" (26).

Swartz's criminal proceedings for the MIT bulk downloading scandal have pushed many information sharers out of online venues to off-the-grid methods à la the personal portable library proposed by Warwick. By moving out of the online domain, the users (and hence curators) of information gain agency and stave off the threat of prosecution similar to Swartz. By toggling between the physical world and the digital sphere, by accumulating texts on a flash drive and sharing peer-to-peer, the user is less likely to be detected by the system.

At this point I would like to focus momentarily on the use of completely digital peer-to-peer file sharing networks. While these networks lack the ambulatory and place-based components of the previously discussed systems (including the Portable Personal Library), they do "have interesting economic properties stemming from their internal organization," which makes them worth mentioning in relation to Warwick's undertheorized work (Klumpp 1). I start off this section with an extremely brief history of digital file-sharing before addressing the tactics used by these data sharers.

**A brief history of file-sharing**

The internet is uncharted territory. It has no physical locations and its jurisdictions are often hazy. We can see many of the copyright kerfuffles of eighteenth century France playing out in the digital sphere as file sharing has become one of the most popular activities for internet users (Klumpp 1). But even file sharing on some level replicates the structure of the library. A file sharing network "must provide a directory or indexing service that enables users to search the network for content and determine its location" (444). Once the content is found, the user can download the item.

The problem becomes copyright. Early file-sharing networks like Napster (which launched in 1999) used a centralized directory server for peers to share files (448). Ultimately this design led to the Recording Industry Association of America suing Napster under the US Digital Millennium Copyright Act. To avoid similar litigation other networks like OpenNap and eDonkey used a less centralized directory server that pieced together files in a method resembling BitTorrent (450). Again, this model resulted in

lawsuits. By 2000, fully decentralized, peer-to-peer protocols like Gnutella and FastTrack were developed. These protocols, which fueled popular networks like Kazaa and LimeWire, allowed users to search each other's digital libraries and download copies of files (451). The threat of litigation against file-sharers loomed large and soon tactics to avoid prosecution—or even detection—were developed.

Danielle Nicole Devoss and James Porter analyze the development of Napster from a rhetorical perspective, calling it "a crisis in delivery, the often-neglected rhetorical canon" ("Why Napster Matters" 179). They explain that downloadable music demonstrates a shift from alphabetic text intended for print distribution to "an emergent and ill-understood view of writing" (179). Devoss and Porter then suggest an expanded definition of writing, one that includes audio and video, hypertext, and "chunks of tagged text and data floating in databases and underneath the Internet in [peer-to-peer] spaces" (179). In other words, the expanded view of writing should also include metadata. As a rhetorician concerned with memory systems, I see this shift in writing as a reformation of what is a library. The idea of many libraries contributing piecemeal to cobble a copy of a text together for an unknown user bucks centuries of control over texts. It gives power to users en masse and requires knowledge of how the system works.[31] It is no small wonder that record companies reacted so forcefully; the passive consumers of their product had developed a counter system that cut out the labels.

**Countermeasures to litigation**

To share files while remaining off the digital grid is a tricky proposition. Computer Science scholar R.J. Ruigrok describes BitTorrent's main problem as a "lack of protection. The identity of peers within a swarm is literally exposed to everybody. In almost every BitTorrent client it is possible to view the list of connected peers with their IP addresses" (25). DeVoss and Porter note the sites of "digtial domain copyright skirmishes" ranging from federal courtrooms to the US Senate (189). They go on to note the expanding venues for filesharing lawsuits which include student dormitories and, in the near future, the classroom (189-90). And indeed, this has happened, as demonstrated

[31] As a high school student during the rise of file-sharing networks, I remember quickly learning how to navigate and use systems like Napster and later Limewire. Beforehand I had little knowledge of how file-sharing worked (or how computer networks functioned).

in part by Swartz's own story. In effect, several systems developed to protect the identity of the user and promote file-sharing. Amongst some of the most notable tactics is the Tor network—"a system that is designed to protect the privacy of Internet users from traffic analysis attacks" by obscuring their path so to speak (McCoy et al 63).

"Tor" is actually shorthand for "the onion router" (Ruigrok 5). The design has an entry point, then passes through several "layers" or "hops" before the exit node. In Tor, the "exit nodes are known for trafficking all kinds of content, including malicious, objectionable and illegal content"—content that would, for better or worse, never be stocked by a conventional library (21). Tor, like so many other systems, seeks to obscure the path leading to (and from) the information. While this is done to protect privacy, it is also done at the expense of context and the data that could be gleaned from understanding the context of the information. The completely digital context shrouded in privacy not only erases contexts, but further obfuscates the biases within the systems.

**The problem of system visibility**

In addition to answering Swartz's rallying cry for open access, Warwick's model of offline libraries and personal portable libraries is further based on Walter Benjamin's 1931 essay, "Unpacking my Library" (30). Amongst the many questions Benjamin poses throughout the work, is "How do books cross the threshold of a collection and become the property of a collector?" (61). Benjamin waxes at length about the various methods by which someone comes into possession of a book; however, the salient issue is ultimately "the collector's passion" which "borders on the chaos of memories" (60). The collection for Benjamin is a system imbued with history. And the history is often personal as the method of organization. Within the catalogue, Benjamin says, "the book itself must speak, or possibly its previous ownership if the provenance of the copy has been established" (64). The history of the commodity and how it is stored is as important as the book itself. In Warwick's model, this origin story is obscured by the method of collection and sharing.

The enthusiasm Warwick has for offline sharing has Benjamin's needed passion, plenty of chaos; it answers Swartz's idealistic call for civil disobedience, but it is devoid of memory. Negating the value of the commodity and the trajectories of how a text came

into being do nothing to address problematic histories or conceptual differences in organization. The structure (or lack thereof) provides no real opportunity to recollect forgotten histories. Warwick himself admits "the Personal Portable Library *only exists as a copy*. Digital Data lacks origination, since it *always already* exists in a state of reproduction" (26). The history and the acquisition of a text might be undesirable; however, a failure to acknowledge that history is deleterious to the development of cultural memory. We cannot hope to see the gaps within a system by operating completely outside of it, nor can we examine the aporia in history when history is forgotten. Such systems, while seemingly free of the history of the book trade, serve only to replicate some of the most problematic aspects of the library, namely its penchant for forgetting its own past and upholding the histories of the most oppressive structures.

To continue using my ghost town anecdote as a metaphor, finding information on a Personal Portable Library would be akin to stumbling across Frisco without any sense of the town is once was. The experience is enriched because multiple resources are layered together. The threat Personal Portable Libraries pose to the greater institution of the public (or academic in this case) library is less significant than the underlying ideology that a faulty system should be replaced wholesale—a notion taken up in the next chapter's discussion of the Digital Public Library of America.

## Chapter 8

## Re-placing the System: The Digital Public Library of America as Counter System

Technology has always been present in the library. If we recall the history of memory from chapter 2, the idea of written texts was considered at one time to be novel. Collecting them in the form of a library was also considered to be an advancement for culture. The invention of the codex, print, the development of book trades, classification systems, loaning models—the list goes on. The point is that historically, the library has been imbued with the idea of technological progressivism, that it uses the latest advancements in technology to increase its ability to store memories (or broker power—or both).

This chapter examines the library in the twentieth century up through the current day with a focus on technological change, most notably the use of the computer-as-library. To preface this section I provide a brief anecdote about the development of the National Park System. Discussing the Park System might seem too far afield when discussing the library entering the Information Age; however, the debates over preservation and access to natural lands very much reflect the debates had over preservation and access to information. My hope is to draw parallels between the more concrete debate of land use and the abstract idea of owning ideas—a technique James Boyle has used in his scholarship (see chapter 7).

After providing my introductory anecdote, I outline the history of library technologies beginning with the microfilm. I then trace how the economy of microfilm influenced a chain of inventions, from the Memex to the computer. With each invention, I also note how information becomes easier to share, how the material of the book seems to matter less. Ultimately, I end up discussing the completely digital collection of materials, which has its own lineage.

The history of the digital library is rooted in the debate over preservation and access (often misconstrued into the problematic phrase "digital divide"—an idea discussed at length). I summarize the legal difficulties surrounding Google's Alexandrian attempt to collect all the books in the world. Google's ambition cleared the way for the most recent effort, a counter system called the Digital Public Library of America

(DPLA). The DPLA launched in 2013 and is led by Robert Darnton of Harvard University. The DPLA's goal is to legally amass a collection of online resources and grant public access to them. As spokesman for the effort, Robert Darnton often relays his own history of the APL—a history focused on more nationalistic ideals stemming from American Enlightenment thinkers like Thomas Jefferson, James Madison, and Benjamin Franklin. As I briefly alluded to in chapter 4, these men certainly had significant influence over the creation and mission of the APL. I provide them a fuller treatment here, especially given their devotion to classical culture which has in turn affected the mission of American libraries, the DPLA included.

Finally I examine the use of the DPLA and its own "spin off" programs. As part of its structure the DPLA encourages users to expand upon or even push against the digital collection by developing alternative forms of searching for texts or organizing them. I relate this idea to Stuart Selber's notion of countersignification—a way to meaningfully subvert the power structures put in place by the institution. This idea carries over into my concluding chapter.

**A personal introduction: understanding access and preservation via the National Park System**

Years ago I was mountain biking out in Moab, near Arches National Park. I had visited the park a few times before—the first time as a child with my family. This time was different though. This time I camped off the park grounds on Bureau of Land Management property. I practiced leave-no-trace camping skills by packing out my trash and choosing the lowest impact methods of transportation (my bike and my feet). I biked across the slickrock with the road in view—a four lane entrance road to the park. RVs, campers, cars with totes on top paid a khaki-shirted ranger at the gate and sped off along the loop road through the park. They would stop every couple of miles, at a parking lot with a sign labeled "scenic overlook." The families would pile out of their cars and RVs, take some pictures. A few adventurous ones might even proceed down one of the gravel trails for a quarter mile. I know, because growing up my family very much followed in this grand American tradition of National Park tourism.

But now, many years older and influenced by the writing of desert anarchist Edward Abbey, I re-evaluated how I navigated the park. The Park Service Abbey notes in *Desert Solitaire*, "was directed not only to administer the parks but also to 'provide for the enjoyment of the same in such manner and by such means as well leave them unimpaired for the enjoyment of future generations'" (59). From here he breaks the ambiguous language down into the two main factions of the NPS—the Developers who emphasize "provide for the enjoyment" and the Preservers who stress "leave them unimpaired." As a ranger himself who saw the tourist numbers to Arches (first monument, then national park) swell from 3,000 per year to 300,000 per year, Abbey aligns with the Preservers. The debate over National Parks and how the land should be cultivated is embodied by two men: John Muir, a ranger who "held unwavering belief in the intrinsic value of wilderness and importance of preserving wild spaces in perpetuity" and resource manager Gifford Pinchot, "whose instrumentalist vision positioned nature as a resource to be managed in order to harness its power and ensure the nation's economic dominance on the global stage" (Spurlock 34). In short, the debate was "Do we preserve the land just to preserve it or do we preserve it so we can use it somehow?"

A balance was struck by President Theodore Roosevelt as he used the Antiquities Act of 1906 and its "sweeping power to protect Mesa Verde [another present-day National Park in Colorado] and significantly increase the number of acres in the public domain" (34). A century later, I, like many of the RV families, was out here on preserved land for enjoyment, to use it in some way. Is the system perfect? No. There are far too many vehicles and parking lots within the park to accommodate the huge number of tourists (myself included). But because like Muir and Abbey, I have access to those lands and now have the memories of Arches (and Mesa Verde), I am a stalwart Preserver.

One of the key tensions of the digital age of libraries involves the issues of access and preservation. Indeed, this has been an issue throughout the history of the library—what deserves preservation and who deserves access? Think of the books stashed away in armariums in chapter 3. The books were preserved, but access was extremely limited. We have to wonder what good a book is if it is not read. My metaphor here—comparing the park system and the library—is not a perfect one, but it is fitting. Ideas of fair use can be likened to land use as we have seen with the work of James Boyle.

In the digital age the infinite spread of information seems to render arguments of physical property moot. However, the metaphor only needs to change slightly to remain relevant. What if we look at the rights of the author as the land to be preserved while viewing the public domain of texts as granting access? Everyone else in Arches National Park has just as much right to be there as Abbey or me on my mountain bike. And likewise, as a tourist I felt I had just as much responsibility as Abbey to preserve and maintain the integrity of the park for future visitors whom I hoped would also act as conscientious stewards. At the same time, the idea of property has moved from being viewed as material and geographically bounded to more abstract in the digital age. Heidi McKee and James Porter outline the relationship between conventional views of property and how they are reappropriated in the digital age noting how some copyright laws "although originally developed for property issues, the cultural expectations that accompany the rights of common access carry over into intellectual property considerations for print and digital works" (292). The landscape of the library is also changing.

My hope is that by the end of this chapter I make the case for modern library users—the droves of people accessing preserved memories—to become conscientious users of the digital library. Increased access and the privileges conferred by technology should ideally come with an increased ethical responsibility to maintain what has been preserved so future generations can continue to expand its cause. We must recognize how the definition of property continues to change. Additionally, we must develop the ethics to provide both access and preservation to the memories created by these new territories.

**Microfilm**

The digital library has its roots in the idea of the microlibrary; that is "an early shift away from the library as place to focus on a specific technology—microfilm" (Birdsall 7). The idea for microfilm is simple: using the relatively new technology of the camera, pictures of a text are taken, shrunk down and printed onto slides or strips of film which can then be projected and read at normal size. Although microfilm was first developed in the mid-nineteenth century, it did not gain popularity amongst librarians until the 1920s—the boom years of the Carnegie library (8). Throughout the 1930s,

Robert Binkley, a historian at Western Reserve University, chaired the Joint Committee on Materials for Research, a group "initially focused on [the] problems of scholars and libraries, with emphasis on the possibility that the new technologies of reproduction, both paper and film, could solve them by creating a new pattern of communication" (Carpenter 283). The relationship between the two materials mentioned—paper and film—could also be construed as the two issues described in my introduction to this chapter—access and preservation.

**Concerns on the durability of paper**

For Binkley, microfilm was not foremost a technology of access—an invention that would facilitate wider readership and research (though he realized this certainly would happen). Rather, he was primarily concerned with preservation (292). At the heart of Binkley's preservation concerns was the issue of poor paper quality—an issue that had been raised with ALA as far back as 1912 (292). Fellow committee member Harry Miller Lydenberg had interacted with Binkley outside of the committee regarding the issue of preservation. While teaching a class at New York University in 1927, Binkley sent his students to the New York Public Library where Lydenburg was the head of reference. They were tasked with combing the Public Record Office publications on the Spanish armada. The heavy usage of this small slice of the NYPL library collection triggered Lydenberg's concern that the materials would be used until they disintegrated—a very real possibility given the paper quality of the publications (293). The encounter resulted in Binkley presenting "The Problem of Perishable Paper" at the First World Congress of Libraries and Bibliography in 1929. Not long after, the two men were appointed to the Materials for Research committee.

Binkley, not surprisingly, took an historical view of writing materials, noting that more durable materials had been used during the introduction of writing (293). The use of these more durable materials "meant that libraries were able to serve the twin goals of disseminating texts and preserving them" (293). Wood pulp paper had become the popular and economical choice for printing in the nineteenth century; but it had also proved itself to be considerably less durable than its predecessors. Lydenberg shared Binkley's view but "retorted that librarians were not scientists, that the chemistry of

paper was a problem for scientists" (292).[32] To conduct scientific work, Lydenberg also secured a $10,000 grant from the Carnegie Corporation in October of 1929 (292-93). While Lydenberg examined the ways to strengthen the material of memory (in this case paper), Binkley sought to change it to microfilm.[33]

**Adoption of microfilm**

For Binkley, the use of photographic copying was a means of salvaging what had been printed on poor quality paper (294). Although the invention of photocopying had been around for some time, he was the first to use it for preservation of library materials, and, more significantly, to shrink the image down for easier storage (294). As with many of the other technological developments it was thought that the "microfilm would revolutionize library services. It would free scholars from the limitations of the printed text and overcome the barriers created by geographic distribution of printed material" (Birdsall 8). The effect of microfilm preservation meant greater access. According to prognosticators at the time, the effect would be far-reaching with small town libraries able to rival their metropolitan counterparts—or perhaps even share collections of the same size (Carpenter 300-01).

Watson Davis, a civil engineer by training and director of the Science Service (established jointly by the American Association for the Advancement of Science, the National Academy of Sciences, and the National Research Council), was "an active promoter of microfilm" as well as a visionary for "using microfilm for interlibrary loans and the delivery of research results directly to scientists" (Birdsall 8-9). In 1932 Davis met Vannevar Bush, who would later become the "father of the electronic library" (8-9). Together, these two men developed a machine they described as "occupying only a few

[32] The tests, as Darnton notes in *The Case for Books*, were faulty. Durability of paper was tested by means of a paper folding machine. The results of the tests predicted a grim future for paper books—nearly 1.3 million volumes would "self-destruct before the twenty-first century" (115). Of course paper-folding does not simulate the action of reading and many of the "books that should have disintegrated long ago, according to the most advanced library science, are still doing very nicely—except those that librarians destroyed" (115).

[33] Ironically microfilm proved to be a poor method of preservation and access. In terms of preservation the quality is beyond poor due to technician carelessness or chemical problems; the cost is outrageous; and, as Darnton puts it flatly, "Reading microfilms is hell" (112). Moreover the preservationists destroyed many of the print texts "by slicing them down their spines so that the unbound pages could be photographed rapidly lying flat. Once dismembered, most of them were pulped" (116).

cubic feet that could hold the collection of a university library" thanks to the economy granted by microfilm (9). Thusly size of a collection—physical size, that is—mattered less.

Between 1935 and 1939, both Binkley and the NYPL made several proposals to the Library of Congress to commit 100,000 works to microfilm as a matter of preservation (Carpenter 305). The materials ranged from newspaper clippings to medieval manuscripts, from early American texts to handwritten European manuscripts. The proposals were rejected. Then World War II gave Binkley an opportunity to present his case anew—this time with the heavy nationalistic appeal characteristic of that time (see chapter 5). Important European documents had been moved to safe locations in London and Paris, Binkley noted—a sign they might be in danger of being destroyed. In a 1939 memorandum he stated it was up to America to "keep Western culture alive" (306). The appeal worked and the copying process started.[34]

At the same time European texts were being copied to film, a librarian at Wesleyan University by the name of Fremont Rider[35] was taking an economic approach to his profession in the age when rising costs and mass publication of print journals threatened to outpace the ability of the library collection. In order "to reduce costs and provide greater access to research material, Rider proposed the microcatalog, a concept that married two tools familiar to libraries, the card catalog and microphotography" (Birdsall 9). The microlibrary envisioned by Rider was a collection that could be "assembled to meet the specific needs of a scholar;" however, "moderate changes in current library practices would not suffice" (10). The microlibrary as a concept "shifted the focus from providing access to information through an institution, specifically the library, to its provision by means of a technology divorced from any institutional framework" (10). The library, he suggested, would have to give up its power. Given the history of libraries as institutions of power—and the heightened sense of power bestowed on them as saviors of Western Culture at the time— it should be of little surprise that Rider's decentralized information system did not catch on.

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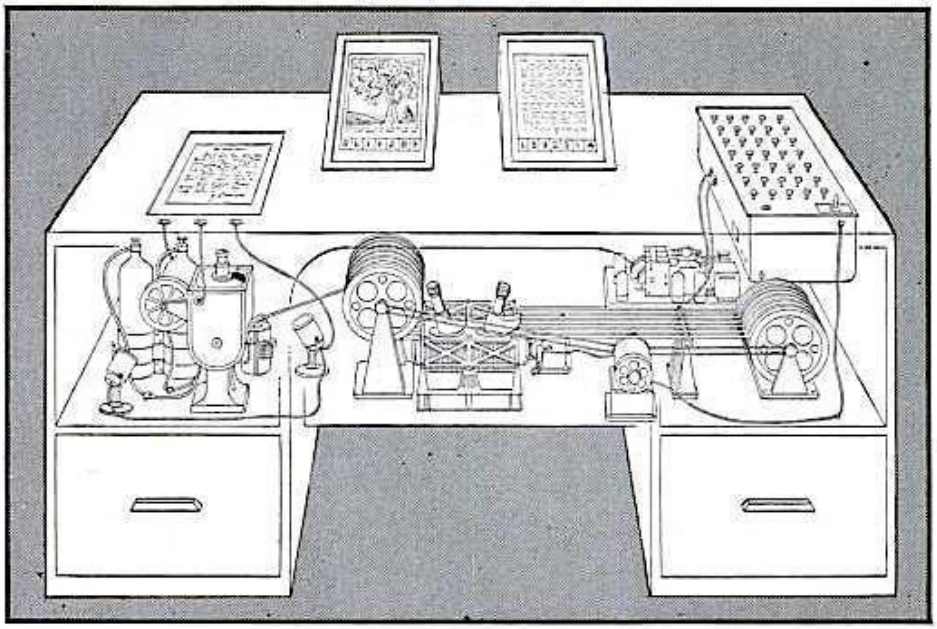
[34] Sadly, Binkley died of cancer just a few months afterward without seeing his dream realized.

[35] Rider does merit a mention in Darnton's chapter, "A Paean to Paper," as the librarian who used a mathematical formula to show the growth rate of libraries and suggest microcatalogs as a way to avoid "a space crisis" (121).

**Memex**

Perhaps the most influential ideas to come out of the age of micro technologies was the 1945 publication of Bush's "As We May Think" in the *Atlantic Monthly* (and later *LIFE* magazine). The article describes the economic and material conditions behind the invention of many common technologies like light bulbs. In a move since emulated by contemporary historians like Robert Darnton, Bush then examines the rate of growth of information as well as the supposed trajectory of technological development and envisions what this may look like. He imagines a device called the Memex—a desk with a screen built into it. Inside the desk the owner can house a library of microphotographic texts. The images can be called up and projected on the screen (Bush np) [Figure 8.1]. The machine itself seemed to marry the goals of both preservation and access by storing huge amounts of material in a unit designed to sit in a living room or office.



**MEMEX** in the form of a desk would instantly bring files and material on any subject to the operator's fingertips. Slanting translucent viewing screens magnify supermicrofilm filed by code numbers. At left is a mechanism which automatically photographs longhand notes, pictures and letters, then files them in the desk for future reference.

**AS WE MAY THINK** CONTINUED

Fig. 8.1

The Memex, as illustrated for "As We May Think;" *The Atlantic Monthly* (July 1945). Print.

Unlike the conventional hierarchical library model which is controlled by alphabetization or numerical order, the Memex operated in the way Bush theorized human worked—by association (Bush np; Selber 177; Barnet 11). The human mind, Bush writes, once it has captured one thought "snaps instantly to the next that is suggested by the association of thoughts, in accordance with some intricate web of trails carried by the cells of the brain. It has other characteristics, of course; trails that are not frequently followed are prone to fade, items are not fully permanent, memory is transitory" (np). The idea for the machine itself was impressive. But the idea of developing a web of trails, or the connection between two or more items via association, was the Memex's revolutionary contribution to memory systems. Stuart Selber writes that "the idea of associative networks forms the earliest conceptual basis for hypertext, and the promise of this technology seems largely tied to its ability to support personal ways of writing, reading, and structuring texts" (177). Selber's idea is an expanded version of the thesis put forth by James Nyce and Paul Kahn in their 1991 book, *From Memex to Hypertext.*

Of course Bush's Memex, like all the memory systems discussed in this project had its antecedents. In Belinda Barnet's book, *Memory Machines*, she describes the influence of early computers like the Differential Analyzer and the Selector—two of the earliest mechanical computers (13-14).[36] The users of these machines developed what Bush called "a 'mechanical calculus,' an internalized knowledge of the machine. This is like a combination of motor memory and mathematical skill, learned directly from the machine" (15). Here again, in mechanical form, we can see the shape of the system not only shaping how the user navigates memory, but also influencing how future memory devices will be designed.

Years later, Ralph Shaw developed the Rapid Selector (a microform storage machine also capable of reproducing the texts), crediting Bush with inspiring the concept nearly a decade before (Birdsall 14). The use of memory machines reignited the age-old debate as to the relevance of the library with some of the most influential scholars predicting obsolescence by the year 2000 (15). In order to stay relevant, information scientists said libraries need to rely on technology and automation systems, discount the

[36] Barnet offers an interesting aside concerning the modern conception of computer. In the 1940s a computer was actually a person—usually an underpaid woman who worked in a room computing numbers via slide rulers; the women were commonly called "computers" (13).

value of the book, and network their information with other libraries (15). To further back up these claims, the Council on Library Resources "was incorporated in 1956 to promote the investigation of solutions based on the use of modern technology to the problems arising out of the information explosion" (15). By the 1960s, the council began to conduct studies into the practices of librarianship in the technological age. Most significant was the 1961-1963 study that resulted in the publication of *Libraries of the Future* by psychologist J.C.R. Licklider (15).

Drawing heavily from Bush, Licklider contended that the future of libraries was most definitely not in maintaining bulky, cumbersome collections of books:

> Licklider foresaw the possibility of the dematerialization of the library. The physical characteristics of the book account for fundamental aspects of the physical library itself. Once we reject the physical book as an efficient transmitter of information, we reject the library. He proposed a melding of the library and the computer and called for a substitution for the word "library." (16)

He eventually settled on a "neolibrary network" composed of "precognitive systems" that coalesced in a machine called he called a "Symbiont" (so named for its human-machine symbiosis) (16). With the increasing costs of obtaining information and the rapidly falling costs of technology, the creation of such a machine seemed feasible; although, the larger obstacle he thought would be to "overcome traditional interdisciplinary barriers by bringing together individuals from library science, computer science, system science, and behavioral and social sciences" (16). Indeed, librarians were no keener on giving up their power in the 1960s than they were thirty years earlier when Rider made the same suggestion.

As with any movement in a field that can be construed as political, there were reactionaries. Traditional modes of librarianship (i.e., best book practices promoted by McCarthyism; privileging hardback format over paperback) threatened technological change. The more progressive and rebellious librarians who called themselves "documentation specialists" and "information scientists" began to collaborate "across

educational institutions and with the private sector" (Selber 130). In particular they "created online databases in response to 'what they saw as the unscientific, unsystematic, and technically conservative ethos of librarianship'" (130). The databases they created strived to be "the exact opposite: scientific, systematic, and flexible" (130). (Though, as I have pointed out in chapter 4, the traditional model of the DDC had been based on the father of the scientific method, Francis Bacon's, own order.)

As political temperatures cooled on the homefront and McCarthyism died, the 1960s displayed continued interest in the scientific automation of library services with a variety of institutions, including the Library of Congress, launching studies, programs, and initiatives to develop information technology (20). The World's Fair of 1962 in Seattle provided a venue to showcase the latest in library technology. The ALA exhibit, *Library 21*, demonstrated what the future of libraries could look like—automated and collaborated with private sector interests. Visitors were given a personalized bibliography generated by the main attraction—a computer called UNIVAC (21). Also on hand was the National Cash Register Company, demonstrating its ability to "reduce a 400-page book to one square inch through its latest technology" (22). While the technology of the 1962 display did provide visitors with a glimpse of the future—continued use of microfilm, automation—perhaps the most telling element came through its collaborations and funding. The ALA headlined the display; however, its two million dollars in funding came from "the Council on Library Resources, the U.S. Air Force, the U.S. Office of Education, and private industrial firms" (21). As noted in the chapter 5's discussion of nationalism, the entangled relationship of government with the preservation of memory devises a stilted view of history. The sponsorships offered by these other organizations could be seen as investments in authoring certain histories rather than sponsorship of technology. Of course, while this seems like a product of the military industrial complex, the use of libraries for military strength stretches back to the Alexandria where the library was used for imperial might and was consequently a target for attacking armies.

**The online library**

By 1967 university libraries were banding together, most notably in Ohio with the establishment of the Ohio College Library Center (OCLC)—"a computer-based library

network that encouraged the introduction of automation in library cataloging operations across the country" (26). (As it expanded, OCLC later came to stand for Online Computer Library Center [Molz and Dain 114]). OCLC was "the first of the bibliographic utilities or networks employing telecommunications to facilitate online cataloging and interlibrary loan for their member libraries" (114). In a move that seems to answer Licklider's call for an interdisciplinary approach, OCLC utilizes a team approach to their projects and with professionals hailing from a variety of academic backgrounds (Richardson 203). If print had ended the age of the wandering scholar by allowing multiple copies of books to exist, then the networked library system of the networked age allowed the collections to start moving to the scholars. It also allowed scholars to collaborate with common resources more easily. This began an age of unprecedented access.

Despite the technological advancements and interdisciplinary cooperation, library research stagnated. As an OCLC visiting scholar, John Richardson summarizes the myopic view of the research of the 1970s as "focused on library settings" and in the 1980s as focused "on library services" (207). The 1970s also saw a cultural soothsayers like the well-published and outspoken Frederick Wilfred Lancaster predicting a completely paperless society by the year 2000 (Birdsall 34-35). For Lancaster the largest obstacle to achieving a "disembodied library" or a "library without walls" was the insistence of librarians that the book was a sacred object (35). In 1981 OCLC in collaboration with the Public Library of Columbus and Franklin County attempted to launch an Electronic Library Association (37). Still, circulation of the physical book increased, climbing from 75% in 1978 to 91% in 1989 (according to an ALA survey on library usership) (37). Yet, the report also saw 68% of respondents answer that online access was important to public libraries (37). The report thus concludes that the "public library is becoming less a place than a service" (Westin and Finger 55).

The 1990s, Richardson goes on to write, began to recognize the importance of non-library settings and electronic resources (207). The dawn of the internet accelerated the push for digital library resources, and the microfilm once again came to be regarded "as a medium of storage rather than access" (Bellinger 178). In 1993 the ALA's *Library Bill of Rights* was reinterpreted to acknowledge the "economic barriers to information

access"—an issue that would later be distilled into the phrase "digital divide" (Molz and Dain 78). The ALA openly opposed passing any cost of information access on to the patron (79). It is in this era of needed library expansion in the face of a technological revolution that we have the first marquee name in the technological history of the library. Not surprisingly, the name is that of a business person-turned-philanthropist—Bill Gates, who, at the time, was the chair and CEO of the Microsoft Corporation.

**Access and the digital divide**

Stuart Selber notes the two major sets of questions raised by Microsoft's domination of the computer technology market in the 1990s. The first set of questions relate to technological concerns: "Is the new operating system sufficiently stable? If so, should I adopt it? [...] Is the new operating system compatible with my current software programs, or will I need to purchase new programs to take advantage of its features? If I use the new operating system, can I still exchange files and collaborate easily with people running an older operating system?" (125). At the time, these were valid concerns as an upgrade from one system to the next could render files obsolete or unusable. Switching from one system to another was a wholesale process; they did not interact with each other.

The second set of questions raised by Selber revisits the topic of copyright laws (first touched upon in chapter 7 and much expanded throughout the latter half of this chapter). With Microsoft "the questions revolved around antitrust issues. Is Microsoft too big? Does it have a monopoly on the operating system market for personal computers? [...] Is Microsoft engaged in anticompetitive practices? If so, what should the government do about it?" (127). Selber then goes on to ask the most salient question when examining issues of access—a question that recalls the Muir-Pinchot debate: "In terms of government actions, what is in the best interest of the public?" (127). Access is the easy answer; but the harder follow-up question of how access will be provided and what are the (financial) responsibilities associated with access needs to also be asked.

Wendy Chun is critical of the interplay between corporations and digital divide, stating that corporations like Microsoft "use the disparity between potential and actual empowerment to insinuate themselves as 'the solution'" (147). The issue of digital access

breaks along race, class, and gender lines with Hispanic females being amongst those least likely to gain access (153-54). When access is provided to these populations by a corporation "narratives of the digital divide and digital empowerment form a circle that circumvents questions about the value of information, or the value of access alone" (147). Indeed, information and access are conflated in the digital realm with access being simplified to an internet connection. Access is not just having the tools and infrastructure, but also the training and support to use those tools. And, most importantly, providing the instruction to patrons so they can develop digital literacy.

Whether Gates provides full access is debatable. In 1996 he donated $2.2 million seed money to the Brooklyn Public Library (Molz and Dain 79). The city, in turn, spent an additional $5.5 million to update its information infrastructure (79). Chun notes how "solutions to the digital divide similarly concentrate on access to the Internet, rather than the tools and skills needed to transform it and similarly erase class difference" (153). Gates, it appears, recognized the problem of only granting internet access. With his wife, Melinda, Gates began the Gates Library Foundation and pledged to donate $400 million to libraries in five years—half in cash, half in free software (Molz and Dain 80). The funds would be allocated to "low-income areas with the least access to information technology" and, of equal importance, to "train and support library professionals in the use and management of digital information" (80). The library professionals in turn would work with patrons to develop computer literacy skills.

Adjusted for inflation, Gates' contribution is second only to Carnegie (80-81). Like Carnegie, Gates has a considerable economic stake in developing computer literacy. When questioned about his motives, Gates responded by noting that any other company was free to donate to libraries if they were so inclined (and, indeed, Apple briefly dabbled in library support before lapsing due to financial troubles) (81-82). Gates, when further confronted with his choice to support public libraries over school libraries, relied heavily on traditional library rhetoric by writing:

> We chose to give to public libraries for several reasons. First, they provide an environment for lifelong learning. They are open to anyone, of any age, from any background. Second, they are open and accessible to

> children and adults outside of school hours, on the weekends, and over the summer. Third, they are staffed by information professionals whose mission it is—whatever the medium the information comes in—to help guide people to the resources they need. (Qtd. in Molz and Dain 205)

Although Gates' mission is very much focused on the development of technology in the library, his justification centers on the library as place in an age when the place-based library was predicted to be a dinosaur. Access, for Gates, was more than an internet connection; it remained as a connection to place. Gates' philanthropy within the historical frame should be treated with suspicion. Even in donating to public libraries, Gates' foundation was questioned as to how much influence it would have over ALA policy (Molz and Dain 178). Cynthia Selfe in *Technology and Literacy in the 21st Century* offers evidence that Gates' philanthropy may have also served his business interests as the economy demanded the "need for technologically savvy employees"—the network-age equivalent to Carnegie's literate worker (89). Selfe goes on to analyze the uptick in computer sales in the mid-1990s as "fueled by increasing numbers of Americans who used computers at work and in school and who had been convinced by the federal government that their success as literate citizens depended on the use of computers" (90). So while the notions of "best books" seem like a convention from the days of yore, the computer and its software have merely replaced the book in terms of hegemonic literacy practices.

Most recently, the Gates Foundation has adopted an "open access policy" which will allow "all users of the publication to copy and redistribute the material in any medium or format and transform and build upon the material, including for any purpose (including commercial) without further permission or fees being required" (gatesfoundation.org). The open season on information appears to be an ideal practice—one completely free of any copyright strictures; however, there are dangers of overstepping legal boundaries. Google discovered this ten years ago when it tried to amass a collection larger than anything ever conceived.

**Google Books and Copyright**

US legislation such as the Sonny Bono Copyright Term Extension Act of 1998, Darnton notes, has grown to favor private industry with copyrights extending seventy years after an author's death or 95 years after a work's corporate creation (like Mickey Mouse) ("Digitize, Democratize" 13). Under these terms, many books published in the twentieth century therefore will not enter into public domain for at least 100 years. The idea of intellectual property still remains tied to the idea of physical property—a point James Boyle has made and a point reflected in the verbiage used by Darnton here to describe the historical roots of our collective mistake:

> Having recovered from their setback in the Age of Enlightenment and rewritten copyright law to their own advantage, commercial interests are now redesigning the digital landscape. The Internet and World Wide Web were meant to be open to all, but private corporations have appropriated so much digital territory and erected so many fences around it that the public is being excluded from what should be its own domain. (14)

Darnton then asks how it is possible to open up the fenced-off territory to the public, before looking at Google's attempt to do so. In other words the debate about preservation and access continues.

Google Book Search was launched in 2005 with the goal of "digitizing books from research libraries, providing full-text searching and making books in the public domain available on the Internet at no cost to the viewer" (Darnton, *Case for Books* 13). Essentially the collection would be larger than any collection of texts, more expansive than all the research libraries of Europe combined, and more comprehensive than the Library of Congress (14-15). It would also be the largest book business ever conceived. Under the agreement, a "public access license" would be made "available to public libraries, where Google [would] provide free viewing of the digitized books on one computer terminal" (14). Google's "generosity," Darnton writes, would be "a boon to small-town, Carnegie-library readers" who would be have as much access to texts as their counterparts in metropolitan libraries (15). Darnton classifies the reactions elicited by

Google Book Search as falling into two distinct categories—"utopian enthusiasm" or "jeremiads about the danger of concentrating power to control access to information" (15). While Darnton, who lauds Google's efforts, falls into the first category, I admit that my own work here counts as one of the jeremiads of power and control.

By October of 2005, a class-action lawsuit had been filed against Google by a number of authors and publishers on the grounds of copyright violation. During their process of collecting and cataloging books, Google had "stepped over the line that divided books in the public domain from copyrighted books"—a misstep that is considered copyright infringement (15). The case was settled three years later, and Google reemerged as a digital marketplace rather than a library. As Darnton describes it, Google "metamorphosed into a commercial library, which would sell subscriptions to its digital database" ("Digitize, Democratize" 15). Profits would be split with Google making 37%; the authors and publishers taking the remainder (15). Most troubling was that "libraries, which had provided the books free of charge to Google in the first place, were being asked to buy back access to the digitized version of their own books" (15). Moreover, the prices would be set by Google with no oversight or consultation from the public. Despite these terms, Darnton remained a proponent of Google throughout the process, opining that while Google would have indeed formed a monopoly, it was "a monopoly of a new kind, not of railroads or steel but access to information" (Darnton, *Case for Books* 17). The uniqueness of information as commodity is its ability to become wholly owned by one entity, not allowing any other business to enter into the market. Wendy Chun disagrees, calling information in the form of electronic data, "the anticommodity: it cannot be transferred or owned exclusively—if, of course, there is any*thing* to 'own' in the first place; because digital media automatically copies what it downloads" (150). It seems that Google came to own the physical commodity of the book and allowed users to see a copy in much the same way the Catholic Church attempted to take ownership of the Bible and control the copying of it up through the Reformation.

Again, the language Darnton employs is that of placeness and enclosure movements with Google "able to exploit its financial power from within a protective legal barrier [...] No new entrepreneurs will be able to digitize books within that fenced-off territory" (*Case for Books* 17). Darnton remained nonplussed by the settlement

because “Google’s record suggests that it will not abuse its double-barreled fiscal-legal power” (18).

In 2011, the settlement cited the Sherman Antitrust Act—the same issue that Microsoft ran into with its marketplace domination. Ultimately the settlement for Google was rejected for violating the antitrust laws. Although the terms for revision were included by the judge, they did not fit within Google’s business plan and the project died quietly, which is where the Digital Public Library of America stepped in.

**Digital Public Library of America**

A year before Google Books settlement was ultimately rejected, a group of leaders from the fields of Library and Information Science and Computer Science, including Darnton, met at Harvard to discuss the possible creation of a Digital Public Library—“a non-commercial library that would make the cultural heritage of America available to all” (Darnton, “Digitize, Democratize” 15). The movement quickly gained a following with online and place-based discussions and the project began to take shape.

Like Swartz and Warwick (discussed in chapter 7), Darnton is concerned with the stranglehold academic publishers have on the market (6). He notes the enormous price tags associated with journal subscriptions for libraries and their continued rate of inflation before flatly stating that “as the amount of knowledge is increasing, therefore, the proportion of it available to the public is decreasing” (7). Darnton, it seems, comes to the same realizations as Swartz did concerning the predicament in which libraries find themselves. Darnton’s tactic for dealing with publishing companies involves working within the legal parameters (or trying to expand those boundaries) rather than breaking the law. Because at the root of it, copyright restrictions pose the greatest obstacle for the spread of information in the technological age. The DPLA addresses this threat through legal means of access. Similar to the work of James Boyle, Darnton see the problematic nature of today’s copyright laws as stemming from the outdated laws of seventeenth and eighteenth century England and France.

**Darnton's history of the DPLA**

It is important to take a brief look at the formation and foundation of these early copyright laws because today's digital texts are still very much steeped in the legalese of material book trade. Like the library itself, copyright laws comprise a structure which continues to privilege the already-powerful (like kings and publishers). Forces that develop in opposition either have to play by the rules (like book clubs sharing their texts) or they challenge the rules (as we shall see with Google).

In eighteenth century France, guilds were granted the exclusive right to copy texts by the king ("Digitize, Democratize" 8). The establishment of the book guilds as the sole guardians of literature forced literature "which could not win the approbation of the censors" to find its way to publishers outside of France (8). Those unpublished books joined a stream of other pirated books and were sold in a "thriving trade inside the kingdom through an underground distribution system manned by their allies among the provincial booksellers" (8). The economic impact of the lost capital, as well as the high price of policing the illegal book trade, caused the French crown to reconsider its laws regarding copyright.

The new "code of the book trade," established in 1777, took into consideration the competition of the marketplace while still acknowledging the right to publish was "granted to the author by the king" (8-9). Under this new code, the author could sell his work to a bookseller. In turn, the bookseller could not exploit the work beyond the author's life (9). The reaction to France's updated code was felt elsewhere, with "Enlightenment thinkers, who generally published their books outside of France, reject[ing] the premises of the entire system" (9). The most common rebuke of the French code involved the rights of the author. Arguments over perpetual versus limited copyrights continued between the intelligentsia and the crown until the revolution of 1789. After the overthrow of the king, the French publishing system changed quickly—liberty of the press that same year; the abolition of guilds in 1791; and the passage of a copyright law in 1791 (10).

Although the British book industry faced a similar overhaul a century earlier, the turmoil of the French system, because of its timeliness, more closely affected the creation of the US copyright legislation. Also of significant influence was the correspondence of

James Madison in Philadelphia with Thomas Jefferson who was representing the US in Paris (Darnton, *Case for Books* 4). The rights of the individual and the rights of the collective were hotly debated in many arenas. The first copyright laws of the Anglo-American tradition reflect the Pinocot-Muir debate as they "struck a balance between two considerations: the public good, defined as the promotion of learning, and private interests, limited to a relatively short period in which authors and publishers could profit" (Darnton, "Digitize, Democratize" 13). The sentiment put forth by Darnton echoes that of his fellow Harvard faculty, law professor Lawrence Lessig. In his concluding remarks during a roundtable on copyright, Lessig notes how "Copyright law has always been about striking a balance between protecting the rights of creators and protecting the access of readers. If technology changes in favor of creators, then law should intervene to tilt it back" (np). How is the author's right to profit preserved and how do we still give access to the work for the betterment of society? Darnton pulls from these American Enlightenment thinkers to frame the DPLA. In the next section I provide a brief outline of these thinkers—many of them familiar figures in US history.

**Enlightenment influences on the DPLA**

To properly contextualize the American Enlightenment, we have to remember there is a strong current of neoclassical values and a continuing interest in the works first mentioned in chapters 2 and 3 of this dissertation. Carl Richardson notes how the US founders "learned to venerate the classics" through their schooling, where they began classical training at age eight (Darnton, "Digitize, Democratize" 12). Philosophy came from Cicero, poetry from Virgil or Homer; Theology came from the Greek New Testament (13). Benjamin Franklin, whose education was less privileged, still found great enjoyment in classical literature, namely Plutarch's *Lives*—a book that was one of the first he selected for his Library Company of Philadelphia (203). Memory was a key attribute of classical writing for Franklin. While working as a printer, Franklin published a translation of *Cato's Moral Distichs*—a collection of Roman maxims.[37] He remarked

[37] Maxims are rooted in classical rhetoric with Aristotle using them as a form of memorization for oratory. Enlightenment thinkers like Thomas Jefferson kept their own "commonplace" books wherein they recorded phrases to be memorized and incorporated into later speeches and written works. (With Jefferson it was

specifically on the translation's facile memorability. Likewise, Franklin's writings resembled the work of the classical era; in particular *Poor Richard's Almanac* "bore close resemblance to such collections of classical maxims" (220).

Out of all the founders perhaps Jefferson's impact on the library matters most. Jefferson especially was said to love classical literature. Between the years of 1770 and 1815 "Jefferson bought thousands of books, many of which were classical works" (Richard 27). The bulk of the 6,700 volume collection was purchased while he was acting as ambassador to France, where he haunted Parisian bookstores and ordered books from London (Gilreath and Wilson 1). These works soon came to comprise the famed Jefferson private library. The collection moved back to the United States with Jefferson. When the Congressional library was burned in 1814 as part of the War of 1812, Jefferson sold his collection to Congress at half its cost (Richard 27). Indeed, those books seeded what has grown into the Library of Congress.

Jefferson's personal library was organized by two interrelated principles—shelf position and type of work. The shelf position (first seen in chapter 3) was a function of bookcase design. Jefferson arranged the smaller books on upper shelves, middle-sized quartos on the ranges below them and the largest (often folio pieces) on the bottom shelves. At the same time Jefferson also grouped the works into a schema adapted from Francis Bacon's *The Advancement of Learning* (2). This system of course would also provide the basis for William Henry Torrey's classification system and later Melvil Dewey's DDC. Jefferson translated the three Baconian categories of Memory, Reason, and Imagination into History, Philosophy, and Fine Arts (2).

When President James Madison accepted the Jefferson library in 1815, he appointed George Watterson as Librarian of Congress (Gilreath and Wilson 1). To the average observer of Jefferson's library "the numbering (and arrangement) of the books on the shelves was perfectly orderly, though in the catalog it appeared chaotic" (7). Jefferson saw his "elaborate arrangement not as a rigid system but as a flexible model adaptable to the exigencies of time and circumstance" (2). He acknowledged his own collection and its organization had been influenced by his profession and that a man of another

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likely to be mostly written work as he often shunned public speaking, including the State of the Union address, due to his poor speaking voice.)

profession might have a vastly different collection. However, as Jefferson's collection was moved into the Capitol, he advised Watterson on the shape the collection should take. Memory as a way to navigate the library remained a primary concern for Jefferson. Thusly he advised against alphabetization of the collection "because of the medley it presents to the mind, the difficulty sometimes of recalling an author's name" (4). The suggested ordering of the books in Jefferson's library "is a detailed and telling product of [his] distinctive imagination at work and has been aptly described as 'a blueprint of his own mind'" (3). Watterson eventually struck a compromise that both preserved Jefferson's classification but also destroyed his "carefully worked-out, sometimes analytical, sometimes chronological order" (4). After being dismissed of his post in 1829, Watterson retained the original Jeffersonian catalog, depriving scholars of the founder's original intent.[38] The hybridized version of Jefferson and Watterson's catalog persists today as the Library of Congress classification system. Like its counterpart, the DDC, its history is obscured.

Jefferson's interest in all things classical extended into architecture. He was key in designing the Capitol and the President's House—respectively modeled after the Villa Rotunda and a portico structure built during the third century reign of Roman emperor Diocletian (45). Most pertinent to my study here is Jefferson's role in designing the University of Virginia campus wherein he "modeled the university's library, its temple of learning, on the Pantheon, which he considered the finest example of spherical architecture" (45). (See figures 8.2 and 8.3.)

[38] There is a copy of the Jefferson manuscript that was mistakenly labeled as the catalog for the library at UVA. (Since the manuscript was not in Jefferson's hand, it was easily dismissed as less important.) The book sat unused in the LoC from 1917 to 1954 when it was transferred to the Rare Book and Special Collections Division (5-6). There it whiled away until Gilreath and Wilson's reprinted it in full in 2010 (6).

Fig. 8.2 and 8.3

The classical structure of the Pantheon in Rome (left) provided the basis for Jefferson's design of the UVA library (right). Pantheon photo from Chin, Kaitlin. "The Pantheon;" *Landscape Architecture Study Tour*; people.umass.edu. Web. Jan. 18, 2015. UVA library photo from Chin, Kaitlin. "The Pantheon;" *Landscape Architecture Study Tour*; people.umass.edu. Web. Jan. 18, 2015.

The overtly neoclassical tendencies of the American Enlightenment are present in Darnton's work. Where Aristotle provided a blueprint for the Great Library of Alexandria, Thomas Jefferson provides a blueprint for the Library of Congress. Darnton's desire to form a great library imbued with a sense of nationalism is present just as it was in Alexandria and 1815 Washington DC. Moreover, the idea to provide access to everyone speaks to the democratic principles often associated with the founders and traced back to ancient Greece. Darnton's work recognizes the principles of democracy and preserving the rights of the author, while still advocating for the advancement and progress of society through access. It is unclear whether if his library merely replicates its predecessors (a likely possibility given Darnton's penchant for relying on American Enlightenment thinkers) or if the library is designed around his own thought process (which has not been made clear).

**Building a library without walls (or a firm foundation)**

Aside from its murky neoclassical lineage, Darnton's work has two areas of neglect—both of which require a slightly different historical perspective than he provides. First, Darnton, in providing his Enlightenment-centric history, provides a

scanty technological history—a history needed to understand the greater complexities of forming a digital library or providing digital access. The first half of my chapter provides a brief history—one that demonstrates the hardware, software, and legal issues of providing digital access. Building a "library without walls" is still a materialistic endeavor. Secondly, Darnton's focus and admiration of the American Enlightenment is too idealistic. He presents DPLA as somehow impervious to the historical tendencies of Western libraries—that is, the tendency to commodify the book and act as an institution of power. For example, Darnton describes the platform instituted for the DPLA as created to

> provide links to content from library collections throughout the country and that will aggregate their metadata—i.e., catalog-type information that identifies digital files and describes their content. The metadata will be aggregated in a repository located in what the designers call the "back end" of the platform, while an application programming interface in the "front end" will make it possible for all kinds of software to transmit content in diverse ways to individual users. ("National Public Library is Launched" np)

The system essentially acts like a closed-stack library, where a librarian retrieves the text for the patron from a partitioned space. The counter, with its librarian, is the front end. The back end—the mysterious way in which the information is collected, stored, and sorted—remains obscured from the patron's view.[39] As the history of libraries has demonstrated, it is this "back end" that matters most in terms of cultural memory.

The system as it is set up has a few problematic areas. Foremost, is the aforementioned invisibility of the system. It may be horizontal as Darnton says; however, if the system is not visible, it makes it harder to identify the aporia in the system's memory. A virtual library promises to supplant the physical one in Darnton's model. But the use of the word virtual needlessly creates a divide between the hardware and the

[39] The Amherst College Library had one such set up when Melvil Dewey first began working there in 1872.

system by which it operates. Clearly, with the use of hubs that deal in making the material digital, the divide is not a great as one might assume.

Jason Farman notes the word virtual stems from the Latin *virtus*, meaning *having natural qualities*. In the 1400s virtus began "to stand in for ideas of force and power. The virtual as a force or power is always conjoined with ideas of actualization or realization" (22). He concludes his brief etymology of virtual by noting that "virtual is not the opposite of real; instead it is a component of experiencing the real" (22). To adopt Farman's historical view of virtual in respect to the DPLA may be more useful since "the virtual has been experienced throughout history as not privileging or erasing one space over another. The virtual is instead an experience of multiplicity. It is an experience of layering" (38). Adopting Farman's use of virtual might help recognize the second problematic area of the DPLA's model—the reliance on a network that privileges larger hubs over smaller ones.

Larger library collections that make up the content hubs of the DPLA are the likely candidates for providing material simply because they house larger numbers of it. The effect this creates can be hegemonic in nature with the ideals set forth in large-scale libraries pushed into smaller communities. Though the computer system—the most invisible aspect of the DPLA—is horizontal, the physical components are not. The virtual library in the Farman sense of the word—a view that forces us to examine the physical places behind the DPLA's online space—is hierarchical. As Lev Manovich writes in *The Language of New Media*, "By organizing computer data in particular ways, the interface provides distinct models of the world. For instance, a hierarchical file system assumes the world can be organized in a logical multilievel hierarchy" (Manovich 65). The horizontal organization Darnton describes is actually tiered with preference given to the libraries with larger budgets and circulation records. Furthermore, Manovich notes that software systems, like those that organize the online collection of the DPLA, "also act as representations. That is, by organizing data in particular ways, they privilege particular models of the world and the human subject" (16). To claim the DPLA as somehow more democratic because these hierarchical systems are harder to detect, is disingenuous.

In a section on modular nodes, Stuart Selber outlines the inevitable nature of hierarchy that within such a system and how it becomes ingrained in the program itself.

The nodal "points are commonly viewed as holders of information, virtual spaces that users traverse and/or create while writing and reading in this environment" (172). He continues to comment on the verbiage used to describe a node, each word somehow denoting a container (page, unit, file, etc.). These "container metaphors impose boundaries on space" (172). By organizing information into containers, a system is much easier to maintain. It also allows information to be sorted into a hierarchical design where "developers reduce basic program functions or subfunctions or modules that are as manageable and discrete as possible" (173). Selber defaults to likening the structure to "sections in a book chapter or entries in an outline, these modules include logically related statements that support larger, discursive goals. Once inserted into a program, modules execute a particular function in a hierarchy of relations defined by programmers" (173). In concordance with traditional views of marxism, the labor is hidden by the system. In the case of the DPLA, the labor is the collecting, cataloging, and digitizing of the book (not to mention the labor inherent in the book itself). All of this is rendered invisible by the "front end" of the system where users interact with the "material."

Lastly, with the acknowledgement of the physical material library as a significant factor in the hierarchical structure should be the recognition of the print text as the controlling commodity behind the DPLA. According to Darnton, the DPLA is a democratic institution, granting egalitarian access to everyone. But according to Andrew Feenberg, "the problem of democracy [...] is rooted in the division of labor"—the subordination of labor to expertise (154). As we have seen in Chapters 3, 4, and 5, libraries have historically dealt in the trade of books more so than information. In the age of technology—of the electronic book—the DPLA has not distinguished itself from its predecessors. The DPLA's navigation of enclosure movements, copyright laws, and procedures for copying and distributing texts remains heavily entrenched in the material. It is only because the "back end" of the system is largely obscured from patron view that the DPLA can deny it is beholden to the book. To move toward a more democratic structure, Feenberg suggests "recomposing formerly divided mental and manual labor in order to reduce the operational autonomy of leadership and reincorporate the alienated

functions of management back into the collective laborer" (154). The DPLA has made strides toward such an approach with its spin-off projects.

If one were to examine the back end of the DPLA model and map where the information came from, it would look very much like the map of the Little Free Library system—loosely networked with nodes of collection and dissemination. The system is set up as a network with service hubs and content hubs. Darnton says the DPLA "is not a vertical organization erected on a database of its own. It is a distributed, horizontal system, which links digital collections already in the possession of the participating institutions, and it does so by means of a technological infrastructure" (Darnton, "World Digital Library" np). The DPLA is made up of service hubs and content hubs. The job of the service hub is to promote and aggregate local collections—collecting the collections so to speak. Content hubs are physical institutions with over 250,000 materials in their collection. These content hubs provide the majority of the DPLA's contents. This "horizontality" Darton claims "reinforces the democratizing impulse behind the DPLA" (np). But perhaps the most democratic parts of the DPLA are the systems that run counter to it.

**Spin-off projects of the DPLA and countersignification**

In discussing critical literacy in the classroom, Selber says that "students should be able to recognize and articulate the ways power circulates in technological contexts" (133). I would like to extend Selber's sentiment from students in the classroom to patrons in the library. For Selber, critical literacy "interrogates biases, power moves, and human implications"—something users of the DPLA and many other library structures would also benefit from (86).

It is not as if the DPLA is completely absent of this type of literacy. Darnton notes how the DPLA's interface encourages users to generate apps or digital tools that are connected to the system via its interface. These tools, he says, are developed independently from the DPLA (np). He calls them "spin-off projects."

But the spin-off projects developed by users are a mixed bag. One tool, for example, harkens back to the traditional library browsing wherein "the user types in the title of a book, and images of spines of books, all related to the same subject, all in the

public domain, appear on the screen as if they were aligned together on a shelf" (np). The emphasis remains on the material and does nothing to recognize systemic gaps since only the public domain books appear on the "shelf." This merely replicates structures; it does not interrogate them. But another tool Darnton describes makes it "possible for a reader to go from a Wikipedia article to all the works in the DPLA that bear on the same subject" (np) in a way that calls attention to how the systems overlap.

Selber describes a method he employs in the classroom that might likewise be extended into librarianship—countersignification. Like the counter systems discussed at the beginning of this chapter, "countersignification suggests redressive social processes that can be used to address the regularization strategy of differential incorporation" (114-15). Such a strategy lets the user confront the dominant forces, narratives, and structures inherent in an institution. The development of apps for the DPLA, if constructed and used strategically, have the ability to do this, like "acts of countersignification, surreptitiously substitute cultural narratives that undermine or contradict the processes of technological regularization" (115). In the physical library this could be the hiding of a geocache (as mentioned in chapter 7)—or purposefully misfiling a book under the "wrong" number as a way of hiding it in plain sight for future use.[40]

The digital context of the DPLA makes it fertile ground for this sort of subversion since "the discourse substitution resituates artifacts in networks of social relations that elevate the status of those individuals or practices that have been diminished" (115). In other words, the materials on the "front end," by virtue of their digital nature, can be relocated into new and different contexts without altering the collection permanently for other users. Most significantly, countersignification acts as "a form of accommodation in that users work in oppositional ways within an existing infrastructure as opposed to creating or seeking out an alternative infrastructure" (115). Take for example, Google's search feature, "Bacon number."

[40] Umberto Eco's novel, *The Name of the Rose*, the library has a secret room where forbidden books are hidden. The secret text at the center of Eco's novel is Aristotle's *Poetics*, on comedy. Because *Poetics* was lost to Western civilization comedy is often viewed as inferior to other arts.

In September of 2012 Google introduced the "Six Degrees of Bacon" search tool. Google users, when playing the popular trivia game,[41] could simply type "bacon number" into the search box along with an actors name and the result would then display the degree of separation with the lineage outlined. For example, "bacon number Bruce Dern" yields a Bacon Number of 2. (See Figure 8.4)


Figure 8.4

Simply typing "Bacon number" along with an actor's name yields the official Bacon number along with the filmic lineage. Screenshot taken by author on Google.com. Web. Jan. 17, 2015.

In doing this, Google made the process visible to the user, even showing how the search engine uses *oracleofbacon.org* to concoct the most direct lineage. The game changed. Google was so efficient at finding low Bacon numbers by recalling forgettable movies and TV appearances that finding an actor with a Bacon Number of more than two or three as it began to appear quite impossible.[42] Using the search engine, one can work

[41] The game was invented in the mid 1990s based on the popular belief that everyone is connected to everyone else on the planet by six degrees of separation. This idea coupled with Kevin Bacon's extensive filmography provides the basis for the college dorm room game wherein participants connect actors to Bacon through his filmography. The original game was a test of memory—how one could recall Kevin Bacon movies and the actors to create a web of knowledge.

[42] Simply searching "Bacon number" on Google provides a top-of-page summary that now says a Bacon number higher than four is very rare.

backwards to connect obscure actors to even more obscure actors in an attempt to up their Bacon Number.[43] By working against the feature so to speak, the user actually increases her knowledge of system, recognizing how it works and organizes knowledge. The two systems—the Bacon number feature and the use of Google to seek out a lineage of actors—are not vying to replace each other; rather they depend on each other to arrive at an answer.

In his 1903 article, "The Future of the Public Librarian," Melvil Dewey takes a decidedly technological stance, one that seems to anticipate the question of library relevance in an increasingly industrial time. He calls the reference librarian a "very valuable invention for helping the public" (Dewey and Vann 1978, 218). Dewey's vision of the future librarian hews more closely to a person who knows how to find answers than a person who has all the answers. Dewey describes the librarian of the future as surrounded by "telephones, typewriters, card systems, fountain pens, and every other practical aid" (Dewey and Vann 1978, 218). The librarian of today adds Google to the list of practical aids.

As I have demonstrated in chapters 3 through 5, history pits one book collector against another and each system of collocation tends to replace the last system. Then, in chapters 6 and 7 I show how the systems all tend to privilege the same histories and metanarratives already set in place—many of them capitalistic in endeavor. Instead of following the capitalistic tendency of Google to take over and monopolize the information market—and add to the rejoinder of "print is dead"—it might be more productive if the DPLA considers itself a spin-off project or a countersignifier of the APL. Instead of seeking to re-place the public library, perhaps the DPLA ought to co-opt the APL much as Cleveland Public Library is using Little Free Libraries to extend its reach. This means that libraries will have to eschew their collective legacy of competing with each other, vying for power over other systems of memory and network with each other to form a more comprehensive system of memory. In my final chapter, I will recognize how some libraries are already taking the initial steps to form these systems. I will also outline what the future of libraries and memory looks like.

[43] One actor has an unusually high Bacon number that became a center of topic on Wikipedia (Talk:Bacon number)—William Rufus Shafter. He is a 7.

## Chapter 9
## Filling in the Gaps: Working Toward Multiple Systems of Memory

It's a strange thing to be someone else's memory. When my brother, Brendan, stays over at my house I have to remember routine things for him. He needs to be reminded to take medicine, go to the bathroom; I have to tell him what temperature it is outside. But beyond the reminders of day-to-day living, I often find myself at a loss for words. How do you converse with a person who has no new memories? While my life has moved on, Brendan's has not; he is stuck in time and we can only talk about the things that came before his botched surgery.

We talk about our childhood trips out west, and he tells me that he remembers them. I'm not completely sure he does, but I don't say so—it's all too fragile. We'd take the van with the pop-up camper, the six of us as one family. We went out to South Dakota first to see the *memorial*s—Mount Rushmore and Crazy Horse Mountain. Brendan and I, we'd lie to each other. We were kids sitting in the back of a conversion van for eight stretches and we passed the time by making up reasons the Badlands were formed. Somewhere in all the guided tours Mom and Dad took us on, Brendan had learned that a great ocean once covered the gulches and mesas of the west. I knew all about fossils from visiting the Petrified Forest—hearing the park ranger tell us these columns of stone were once trees. By the time we came to Arches National Park, when we saw the great stretches of stone arcing up into the air, voids of sky blowing through them, we told each other progressively more elaborate tales of how these formations were actually the petrified remains of a sea serpent. It made perfect sense to us.

Brendan doesn't always remember. He'll nod his head, brow furrowed and say he thinks he remembers. And it's tricky to tell if he actually recalls. He's developed ways to remember things and he says them out loud. Anymore I recognize these techniques. I tell him my son's name, Alex, and he repeats it over and over again. A marketing maxim says that if you hear something seven times you'll always have it in your memory. But that doesn't work for Brendan; he'll remember Alex's name for the day. A week later, he's forgotten it, forgotten I have a son, a family, that I don't work as a short order cook in the kitchen anymore.

Brendan rhymes words. I tell him I live in Alpha now and he asks if I live there with Ralfa, my old cooking buddy. I laugh, pretending to not know what he's doing. Then, I hear Brendan repeat to himself, "Ryan lives in Alpha with Ralfa." Rhyming is a medieval technique of memorization, I think to myself, and I recall the book where I read it, when I read it. And for some reason I can also remember the sweatshirt I was wearing when I read it. For a moment I'm lost—thinking about that moment, sitting on the couch, book in hand, the pen—it was black, yes, and leaky—I remember underlining the passage; it was at the bottom of the page.

"Ryan, didn't I go to outer space once?"

All the sudden I'm back here, now, standing in the kitchen of my house in Alpha with my brother. I repeat his question, "Were you in outer space? Like an astronaut?"

Brendan laughs and says he doesn't think he has been to outer space, but he thinks he remembers going. "I was training to be an astronaut." His eyes dart back and forth and he nods absently.

Mom told me he's been doing this a lot lately—confabulating. The doctors told us it's his way of making up for lost memories, that the things he thinks may have actually happened are pulled from what remains of his memory.

So I act as Brendan's memory. I try to recover part of the person I grew up with. "You were never an astronaut," I say. "But you did love outer space." I tell him about all the space movies we watched—A*pollo 13*, *Space Camp*, *The Black Hole,* and his favorite, *The Right Stuff*. "You collected models of the Apollo spacecrafts and went as an astronaut for Halloween. You wore the jumpsuit you got at space camp in Alabama."

"With Matt," he says. This he remembers. He tells me about how someday Matt will be a Navy pilot and I don't interrupt to tell him that Matt is currently stationed on an aircraft carrier flying jets. I just want to hear him accurately remember. "Matt and I flew down to Alabama by ourselves and Mom was all nervous. But once we got to Huntsville everything was fine. We stayed in a dorm and rode in a Cessna to simulate zero gravity."

For a little while it's like we're sitting in the back seat of the big gray conversion van again, only this time we're trying to recall what was true.

In this concluding chapter I use the prefacing story of my brother to show the fragility of memory and why it must be cared for—how confabulations can, over time, turn into truths. The methods my brother uses to cope with his lack of memory are faulty—and yet they reflect the techniques often adopted by institutions for memorization. The idea of confabulation—the substituting partial or contrived memories—speaks to the ways in which memory has been housed for thousands of years. This final chapter sets out to do several things:

I first examine my approach to memory as a system by highlighting the three main components present throughout this project. I look at how **space and place** at one time dominated the canon of memory in the form of loci mnemonics. I also look at how the idea of creating a "library space" has become divorced from memory in contemporary library studies. I then turn to **classifications**, briefly recapping their problematic nature as hierarchical and limiting structures. The last component of the library memory system I examine is the **collection**—how the materials are gathered, ordered, and accessed.

After examining the power dynamic created by space/place, classification, and collection, I summarize the various counter systems I studied in chapter 7 and the ways in which they subverted the dominant form of memory—the APL. I draw special attention to the efforts of the DPLA (chapter 8) as a counter system because of its enormous potential for success or failure.

Next I outline the implications of my project and how my method of rhetorical history through recovery can be further adopted both within the field of rhetoric as well as outside of it. I also look at the implications of the study itself and how libraries and rhetoric can benefit from the rhetorical history of libraries as systems of memory. I recognize some of the recent developments in the field of Library Science and note where rhetoric might illuminate alternate ways of storing memories.

Finally I survey the prospects for continued rhetorical history work in libraries. The future of libraries promises to change dramatically in terms of hardware—the conversion from paper to digital; however, at the same time, libraries have remained fundamentally the same as power structures. I provide some anecdotal examples of contemporary collections that could possibly change the way libraries conceive of and

store memory in ways that empower the patrons. I end this section, and the dissertation, by recognizing the areas which will need further study.

**Systems of memory**

The ways in which memories are preserved and accessed is a complicated interaction of several components when using the systems approach to memory. The end result of this process—finding a book upon a shelf—belies how the text came to be remembered as it is. Rather than looking at the book as the sole vehicle of memory, I look at its context within the system to develop a greater understanding of the text. The contexts on their most basic level include the space/place of the memory, how it is classified, and by what means it is collected. In the next three subsections I break these three areas down in more detail.

**Space and place**

Since the beginning of memory as an art, when Plato warned against writing, placement has been essential. Where memory is placed—whether in terms of classical loci mnemonics or Camillo's memory theatre of the Renaissance or the modern-day APL—remains important, though overlooked. Over time, and with the development of technology to aid in memorization (writing, the book, libraries), the placement of memory has received less attention, although it remains essential to storing and locating memories.

In libraries, the placement of texts reifies how they sit in our memory. While many of the library studies on space and place focus on patron usage (user experience studies) and accessibility, few examine the ways in which placement acts as a form of memory. The focus on user experience is important, but elides how memory operates as a place-based system or contributes to the user experience. By providing a rhetorical history of memory that shows the relevance of placement in conjunction with libraries, I have demonstrated how the two are interlinked. Ultimately the link place and memory remains unrealized and undertheorized in library studies, even when the connection is more apparent. Place and memory, I explain, are tied together in some libraries like

Seattle Public Library main location, which uses the DDC to form its "book spiral," yet it is analyzed largely as user experience (see chapter 6).

In chapter 6 I also examine the importance of the library's placement within the context of community and how it remains symbolic of power. The placement of the library within the heart of many towns literally makes it central to their community. While these symbolic placements send a message of power, they may not always best serve the public as is the case with the San Antonio Public Library. In these cases, groups of people are marginalized and a space or system acting counter to the dominant system could provide them with better access and/or leverage to gain attention.

Place becomes the raison d'être for my idea of counter systems. The counter systems presented in chapter 7 each have a particular tie to place. Book distribution programs like the DPIL place books in children's homes. The act of book ownership—of building a library at home—DPIL argues is integral to early literacy. Little Free Libraries as small *memorial* structures are dependent on placement within the community. How they are positioned within the community can subvert or reinforce the social contexts. Meanwhile, the Radical Offline Library resists confines of place by attempting to go "off the grid." Each system has a unique spatial relationship to the dominant structure of the APL. And with each iteration of the library, with each redesign, we see a new way of space as a way of imagining power.

The erasure of place attempted by the Radical Offline Library is more practically dealt with by the DPLA. In chapter 8 I explain how the DPLA is attempting to delimit the restrictions of space by creating a completely digital collection. As promising as the DPLA seems, ignoring the influence of place on memory does not correct how it forms hierarchies of classification. A large part of this dissertation is me calling for not just a recovery of memory, but a recognition of how classical forms of memory like the loci mnemonic continue to influence our ways of understanding the world, mostly in the form of classification.

**Classification**

Much of contemporary library literature and the popular articles about libraries focus on the redevelopment of library space. While this is certainly an important issue, it

often obscures the larger—and as I argue, more influential—problem of classification. How we classify library materials stems from one of the oldest forms of Western memory—the loci mnemonic. As I explained in chapter 2, the loci mnemonic is based in place with background imagery and objects placed in the foreground. Naturally, this form of memory creates a hierarchy wherein some memories are privileged over others.

The dominant classification system for preserving and accessing memories in the APL is the DDC. I outlined the history and personal motivations of the DDC in chapter 4 as I examined the historical contexts surrounding its creator, Melvil Dewey. I highlighted the criticisms of the DDC put forth by Eunice Kua and Wayne Weigand, both of whom, like me, are astounded that a system with such a narrow worldview (1870s Amherst, White, Anglo, Christian) has such wide usage. While newer classification systems or alternate forms of the DDC have been introduced,[44] the systems are obstinately hierarchical in structure and many of them still ape the systems from which they were born. In replicating their structures, many of these newer systems inadvertently perpetuate the biases of the original system. In library history, technological progress—the microfilm movement of the early twentieth century, the current digital movement—often masks the ways in which the classification system for the material remains unchanged.

In short, classification systems are undertheorized, yet essential components to contextualizing memory. Bowker and Star, in *Sorting Things Out*, study the relationships between materials and how these form systems of classification. The classification forms connections between the texts they authors call alliances. They note how "in passing, these alliances can form a kind of organizational memory that becomes instead forgetting" (261). The problematic nature of classification and its forgetfulness stems from the material condition and exigence of the texts. Bowker and Star provide an example salient to this project when they write that "the alliances may be fragile, or historical circumstances may change. Thus, for example, the problem of using a centralized external memory source like the library at Alexandria" (261). My own project

[44] For example, some libraries such as Maricopa County Public Library in Arizona have adopted the BISAC model—a classification system employed mostly in bookstores (Fister np). Other libraries such as Phoenix Public Library, Topeka and Shawnee County Public Library, and Anna Porter Public Library of Gatlinburg have found this approach to run counter to core librarian principles and have opted for a hybridized model that combines the bookstore approach with the DDC (np).

here is an entry point into the study of classification within the library. Further studies on library classification as memory might benefit from emulating the work of Bowker and Star.

Library classifications tell users where memories fall in importance in culture by whether they are subordinated to a subclassification or have a heading of their own; they communicate larger worldviews through their divisions of knowledge; and they perpetuate outmoded models of social ideas. Additionally, "the classification system tells you what to forget and how to forget it" (278). To study classification and its creation is to understand the biases and prejudices present within a system and manifested within a collection.

**Collection**

To the average public library user, the collection may not seem especially dynamic. Books and DVDs on shelves do not feel like they can shape cultural memory until they are accessed. The invisibility of the collection's influence on the user is precisely why it is a powerful force. In this dissertation I look at collection as both a thing and an action. As a thing, collection simply refers to the materials amassed within the library. As I demonstrated throughout my rhetorical history of Western libraries, the larger and more comprehensive the collection, the greater the institution's power. This notion extends from the collection of scrolls in Alexandria, to the volumes of books stored by the New York Public Library, to the files accessible through the DPLA. The materiality of libraries—even when it is in the form of digital texts—gives the library power.

Perhaps more telling is the use of collection as an action. How libraries come to amass their materials reveals the exigent powers underlying the system. In Alexandria warfare and competitive markets of writing materials like papyrus enabled the Ptolemies to amass their collection. The violent nature of book collection continued through the medieval era coupled with the jealous hoarding of books by the privileged class of monks and clergy. With the advent of print, books began to lose their value as singular objects; their prices fell as they became easier to replicate. The act of collection thus turned from jealously guarding and warring over manuscripts to restricting the markets through

instantiation of copyright laws and attempts to censor and prohibit (see the *Index of Forbidden Books* in chapter 5). Instead of competing for a limited number of books, libraries started to out-collect each other and the value of the text came from cross-referencing and synthesis.

I also highlight the idea of circulation as part of the active form of memory within the library system. To oversimplify the matter, the library has a collection of books that it checks out to patrons. As those books are returned, they are re-collected. This continually shapes and reshapes the collection and the corpus of print memory. As I point out in chapter 5, this is more than mere semantics. Library collections are in part responsive to patron usage. As materials gain popularity, the collection surrounding that topic grows. One need not look any further than cultural phenomena like *Star Wars* to see just how many materials are collected because of popular demand. Meanwhile, on the other end of the spectrum, materials that do not circulate stand a good chance of being "weeded out" of the collection. The materials added to and eliminated from the collection provide us with a view of cultural memory. The idea of collection as a whole, as both a thing and an action, demonstrates the misdirected focus on the lone book as a vehicle of memory.

As space/place and classification merge within collections, they coalesce power through acting as a system wherein each part is dependent on the other. Together these aspects form a problematic system of memory. The system is troubling for a number of reasons, many of which should be evident by now. The structure of library—its design—is an exteriorization of memory. As libraries are redesigned for "modern users," the issue of memory and its hierarchy still persists. Likewise, the use of classification systems as an unrealized component of storing and accessing memory reifies worldviews that are outdated. When using the classification systems, users often do not realize the classification is a way of remembering that reflects a worldview of a particular time and place, rather than acting in a progressive, forward-thinking manner. Lastly, the idea of collection is not as benign or inert as it appears. The formation and act of collecting, like classification, informs the users' thinking, often without the user noticing.

With a structure so problematic, the temptation becomes complete replacement. As I have stated throughout this dissertation, such a move would be foolhardy. Even the structure of the word "replacement" reveals the nature of problem: the memory only

moves from one place to another; the system instilled in the stead of its predecessor is likely to replicate the same systems of power. A promising route for memory and library users I suggest is a robust collection of counter systems of memory.

**Counter systems of memory**

Historically, institutions of power create opposition. When examining the formation of library collections, the power of institutional forgetting is just as powerful as remembering. In chapter 7 I began to look at how other systems of memory operate outside the library's structure to preserve otherwise forgotten memories and give access to marginalized groups of people. While my survey of counter systems of memory is not comprehensive, I hope to provide a foundation for future studies in alternate forms of memory.

First I looked at how book distribution programs like the Dolly Parton Imagination Library work in coordination with traditional libraries to build communities that value literacy. I note that with these programs comes the risk of promoting cultural hegemony by forgetting certain subcultures or circulating texts that promote a certain worldview. I also point out the difficulty of engaging the least literate households because book distribution programs tend to reify reading practices already put into place. Even within these systems, counter systems like Alaska's Best Beginnings, can fill in those *memorial* gaps by advocating from groups like the native Yup'ik people.

The second counter system I examined was the Little Free Library—a network of micro collections of books existing to promote the circulation of literature. These small structures I argue not only promote reading, but also act as *memorial* spaces within communities. They can be resistant to the communities and/or the larger structures prominent within a community.

Chapter 8 outlines the single largest challenge to the traditional library to date, the Digital Public Library of America. The DPLA, as promising as it seems, does obscure a few key issues, including questions of access and the reification of hierarchical thinking. Still, the DPLA seems to recognize these blind spots and is developing community hubs through localized resources and encouraging the development of "spin-off projects" (see chapter 8).

**Implications**

My project largely focuses on library history. The main figures I study are Demetrius of Phalerum, Melvil Dewey, Andrew Carnegie, Robert Darnton—all librarians except for Carnegie, the library philanthropist (and all are men). While the library is the central topic, the implications of my findings have direct impact on the field of rhetoric. Namely I use the library as a major cultural institution to further the recovery of memory in the rhetorical canon. The recovery and reinstantiation of memory expands how we think of rhetoric.

In chapter 1, I summarized how scholars like Jarratt and Glenn recover lesser known or forgotten females figures in rhetoric by reexamining primary texts for male rhetors. For example, the precedent of accepting Socrates' work into the rhetorical tradition although he wrote nothing had been set. The argument for the scholars interested in recovering the work of Aspasia followed the same logic—that she could be recovered through mentions in others' primary texts. Glenn also conducts an analysis of two paintings of Aspasia to gain a greater understanding of her historical representation in literature ("sex, lies" 181-82). Meanwhile Jarratt in her research emphasizes the power of performance of sophistic rhetoric ("First Sophists" 73). To give these forgotten histories the attention they deserve, a certain acknowledgement and dismissal of memory is needed. Glenn acknowledges the representation of Aspasia as a harlot, but does not allow it to become canon. Instead, she uses the resources available to craft a new memory. These new memories are not meant to *re*place the older ones; they are meant to critique them, build off them, expose them as confabulations.

Meanwhile cultural recovery scholars like Powell and Villanueva use archival research and personal narratives to call attention to forgotten peoples. In Powell's research, she invites the reader to "a new imagining" of American Indian texts ("Survivance" 399). The texts she examines—Charles Alexander Eastman's *From the Deep Woods to Civilization* and Sarah Winnemucca Hopkins' *Life Among the Piutes*—are largely forgotten or reappropriated to "fit" American history. We can see the dominance of one culture over another when she writes that "'The Indian' must disappear to that 'America' can live" (402). Villanueva takes a personal approach by directly

relating his ethnic heritage to his scholarship. His perceptions and cultural memories are formed by his life and by the lives of those who came before him. Memory, for Villanueva, reveals the history behind the prejudices a person of color regularly faces. Like Powell, he delves into the archives to recover fragments of speeches from Puerto Rican rhetors ("Colonial Memory" 632).

Unlike Jarratt, Glenn, Powell, and Villanueva, I am not recovering a lone aspect of memory like an historical figure or text. My recovery of memory recognizes that some elements continue to exist despite being forgotten. These elements—the aforementioned dynamics of space/place, classification, and collection—create a nexus of power that privileges some forms of memory while subjugating others. This system, I argue, is responsible for the deletion of Aspasia; its erases the Sophists' contributions to rhetorical studies; it shares the blame for the disappearance of the American Indian; it marginalizes ethnicities and promotes racism. By recovering each of these elements as an essential part of institutional memory I am able to highlight how they network and interact with one another to obscure some memories and promote others. As I acknowledged at the outset of chapter 5, the scope of this dissertation is somewhat limiting. My main goal has been to recover library history as crucial to rhetoric—an aim that involved relating the most prominent figures in library science to *memoria*l structures. These figures are a cast of the usual suspects—privileged, white, male, educated, and placed at the top of a system of power. Moving forward from this project, I would like to see the continued recovery of library figures for rhetoric, including lesser-known and forgotten people who were marginalized based on their identity. Their memories matter. But first, we have to see how memories are created and stored.

This dissertation is also heavily influenced by Stuart Whittemore's work in the field of technological and organizational forms of memory. In his writing, Whittemore is primarily concerned with the technological aids of memory and how they interact with and influence the ways in which we memorize information. In *Rhetorical Memory*, he examines the practice of memory within the workplace and looks at individual cases of how writers access and navigate the organization. He draws out how the writer as rhetor both contributes to and resists the larger structure. The individual practices of the writers within the system become the focus of his book.

While Whittemore is looking at the job of writing within an organization as a form of memory and how that writer operates within the system, I am concerned with the ways in which the system goes about taking the content of the writer and organizes it as rhetorical memory. I am less concerned with the production of individual works and more concerned with the collection of it as a larger text. Where issues of the individual writer and embodiment are central to Whittemore's work, they play a diminished role in my examination the entirety of the system. Both perspectives are needed as both the individual and the system shape memory.

My project, I hope, also expands the ways in which we research, not just within Composition and Rhetoric or English, but in fields where one where rhetorical history might seem less important. By scrutinizing the histories of their discipline, other fields can hope to recover unrealized advances. For example, Steven Poelzing, a biomedical engineer at Virginia Tech, recently delivered a TEDx talk, "Simple Solutions," on his research into intravenously-administered fluids and their affect sudden cardiac death. The subject and field could not be any farther from rhetoric and library studies. Poelzing begins his presentation by recounting the history of salt water as replenishment for blood. An important development, he says, is the 1880s development of "Ringer's solution"—salt water with added potassium. Initial tests run by Sydney Ringer's lab assistant saw positive results whereas subsequent tests run by Ringer himself turned out quite the opposite. Poelzing immediately admits that "certain details are lost to history," but notes how placing the solution within historical context reveals an essential and lifesaving element—calcium. The lab assistant used tap water instead of distilled water. The minimally-treated tap water pulled from the Thames River provided a crucial element for staving off sudden cardiac death in some situations. As part of Poelzing's findings he advocates for continued scrutiny of established medical practices through historical recovery. Poelzing's research would be less informed, possibly even unrealized if not for some rhetorical scrutiny of history.

Likewise, only accessing the memories available through the library builds on the systems already in place; it provides no scrutiny into the system by which we remember. Furthermore, it provides no record of the memories that have been suppressed and/or lost. I include the idea of counter systems in this dissertation to show how other forms of

memory can contribute to our cultural memory in meaningful ways. Using counter systems exposes gaps in knowledge and encourages user engagement within in those fissures.

In the age of technological collections that are less tied to space, the development and use of a counter system like the DPLA is an entirely feasible concept. Again, I do not view the brick-and-mortar library as obsolete; it is not an either-or situation. DPLA is simply an alternative way to view and access memory. Jason Farman writes that "we are living in a time in which the two realms of the realized and realizing (or the actual and the virtual) do not signify themselves as exclusive spaces; instead, the interaction between these spaces continues to become mutually constructive" (Farman 46). As library users toggle between the real and virtual libraries, they can be made more aware of how the library is structured. But raising awareness is the key.

In the last decade libraries have acknowledged the widening gap between online and physical resources with the development of classification systems like RDA (Resources Description and Access) that layer on top of the DDC. Historically, how library materials have been cataloged into the collection had been "left to 'cataloger's judgement,' which requires a great understanding of the rules and an even greater understanding of the history of how the rules have developed" (Moore and Weinheimer 3). RDA functions more like instructions rather than rules. The major improvement with RDA is that it acknowledges the material of the work—whether it is digital, a book, or an adaptation. Whereas DDC would send the user to browse under a certain classification, RDA works specifically for an online database to provide the user with a list of materials matching the keyword. For example, a search for *Hamlet* would traditionally send a user to the Shakespeare subclass—822.33.[45] Using RDA, the work (*Hamlet*) is searched for expressions—different printings, interpretations, and formats of the work. The physical manifestations of the work, a book, a DVD, streaming audio are then provided to the user as individual items. Layering RDA onto the DDC allows users to navigate between the actual and virtual collections—a move that builds awareness of classification.

[45] Shakespeare, it should be noted is a bit of an anomaly in the DDC as he is the only author to have his own category—a clear reflection of Dewey's Amherst belletristic education.

RDA is said to work well in the age where "libraries believe that they must provide a 'single search box' that finds 'everything'"—much like Google (5). While it does a good job finding the material, the model—a search box that returns results—obscures the process much like a librarian retreating into the closed stacks of a nineteenth-century college library. Much can be learned by comparing the location of *Hamlet* in the DDC with its RDA results. The privilege of Shakespeare's work (especially during the time of the DDC's formation) and the lineage of *Hamlet's* interpretations could be made more visible.

In terms of research practice, I believe students would benefit from not just learning search skills through search engines like Google Scholar or databases like Ebscohost; they should develop an understanding of how data is collected and classified in the first place. The librarian, who is often a peripheral research assistant figure in many first year composition courses can provide valuable insight into how the information is organized. The librarian is in a position to explain the ways in which the collection (both physical and digital) is formed. As students search for their texts, the librarian can show how different search tools deliver different results and why. Many students in first year composition possess at least passing familiarity with search engine optimization, but they do not see it as part of the reality of using a library resource like Ebscohost. As Lucas Introna and Helen Nissenbaum state, "the Web is almost inconceivably large, and [...] search engines only very partially meet the desperate need for an effective way of finding things" (170). Of course the metadata input by the researcher massages the system to find the source more easily. The end result according to Introna and Nissenbaum is that "information seekers on the Web, whose experiences are mediated through search engines, are most likely to find popular, large sites whose designers have enough technical savvy to succeed in the ranking game, and especially those sites who proprietors are able to pay for various means of improving their site's positioning" (175). Quite simply, the tools of the library search are rhetorical in nature—and metadata is a major tool.

Stewart Whittemore defines metadata as the "structural knowledge of potential user views […]. That is, it is data that names a pieces of content (the data), defines it, and relates it to all other pieces of content in the database" (93). These connections between

pieces of data—or the nodes in a system—often tell us significant amounts of information. William Hart-Davidson similarly notes how "the relationship between one piece of content and another is often more valuable as a unit of information than what is on either side of that connection. Building relationships among existing pieces of information is as valuable for content providers as it is for users" (29). To put this back into historical perspective, we have to see the library collection as turning from a passive thing into a deliberate act. The Great Library of Alexandria positioned itself as an institution of power by collecting large quantities of texts—the idea of collection as a thing, a bunch of scrolls in a building. Yes, a classification system was present, but, on the whole, unimportant and underdeveloped. Fifteen hundred years later, when print culture had firmly taken hold, libraries exercised their power through the act of collection—determining which books would be included as part of the library and where they would sit in relation to other books (see explanation of DDC in chapter 4 for specific details). With the seemingly infinite number of written works, it becomes easier than ever to exclude or forget parts of the collection. The act of collection, of creating metadata, is rhetorical. Whittemore notes that "without its metadata [a] piece of content would be for all practical purposes lost because it would not be readily retrievable. It would, in effect, be unusable because forgotten, forgotten because undifferentiated" (94). The system in effect needs to be authored, the metadata authored in order to have memories preserved and accessed. As the library continues to change, it only becomes more imperative to include the librarian as a rhetor and the organization of the system as rhetoric.

**The future of memory**

Melvil Dewey, in his twilight years of library service, pondered on what the future of the library might look like. Dewey envisioned the librarian surrounded by technological aids—"telephones, typewriters, card systems, fountain pens" (Dewey and Vann 218). The use of these tools would allow the librarian "to break loose entirely from medieval traditions that seem to make it unprofessional to study minute economies" (218). At once Dewey's vision is grand as well as myopic. He is able to at once realize the historical strictures of the library and at the same time calls for a deeper study of narrower fields. The idea of contextualization and broader synthesis as the future of

librarianship and research is lost. The library it seems strives to be progressive, yet it maintains a structure that holds on to its power above all else.

Much of this dissertation critiques the ways in which the library has positioned itself as an institution of power. Some of the histories are not flattering and the historical figures, including Dewey, are not always saintly. I am critical of many of the library's core practices including classification and collection development. Despite its questionable history and checkered past, I believe the library remains an important, if not *the* important, cultural institution of memory.

Many publications question the relevance of libraries in the digital age or if libraries are really needed anymore. *Inside Higher Ed* regularly runs stories about bookless libraries and the diminishing importance of printed text.[46] For the most part these thinkpieces sound the death knell of library without providing historical background or any current research beyond a few case examples and the personal anecdote. By providing a 2,500 year history of the library, I hope to have demonstrated first that the library as an institution is extremely resilient, and secondly that the library, while perpetuating many of the same problems of its predecessors, is able to adapt and change with the technological advances. It is often the combination of the library's resilience and adaptability that belie its opposition to *memoria*l change.

**Changing notions of collection development**

Just as Glenn and Jarratt utilize non-print elements to recover memories, the public library needs to encourage the preservation and access of non-traditional (print) library materials. Dewey, in the aforementioned "The Future of the Public Librarian," implored librarians to look beyond the book in terms of collection. While the book was still important to Dewey, "pictures, specimens, classes, and lectures, and other means are found sometimes to be more effective or desirable" (Dewey and Vann 218). The library of the future for Dewey did not remain print-centric.

Despite my aversion to replicate the classical structure of the library, the joint venture of the Great Library and Musaeum of Alexandria does provide us with a

[46] For example, in 2009 Steve Kolwich wrote an article titled "Bookless Libraries?" In the article Suzanne E. Thorin, dean of libraries at Syracuse University is quoted as saying, "Let's face it: the library, as a place, is dead" (np).

rudimentary model where multiple forms of knowledge can be synthesized and accessed as scholars could walk between the collections housed in connected buildings. What I am talking about here is not turning the library into a museum by simply collecting artifacts. Museums house artifacts, but are unable to circulate them for obvious reasons. Instead of obsessing over the divide between digital and material spaces, libraries will need to examine the interaction between the two. Within the university this practice would fall most directly under the purview of Digital Humanities—a field that seeks to bridge the more traditional elements of a liberal education and apply the most current technologies to them. At many universities Digital Humanities are directly connected to the library (The Ohio State University library, for example, employs a Digital Humanities Librarian). Moving forward, university librarians should be working in collaboration with Digital Humanists to increase the circulation of non-print materials.

Many public libraries now house makerspaces[47]—workshops filled with hardware and software with the purpose of creating content. Makerspaces have the potential to actively form memories otherwise not cataloged or housed by the library. Makerspaces offer 3D prototyping, sound recording, vinyl printing, sewing—the list goes on. These spaces becomes centers of memory production wherein the patron contributes to the collection, rather than being controlled by it. When a makerspace is set up to allow invention by the patron, it can act as a valuable counter system within the institution.

Imagine a makerspace working in conjunction with a local historical society or museum to conduct 3D scans of the museum's artifacts. The library could create virtual tours using Google Cardboard[48] or even inventory items and have them available for 3D print. Programs like these are already becoming a reality. Two Way Street is an independent internet-based system for exploring The British Museum collection. To date they have cataloged 1.9 million of the museum's 2.2 million records (twoway.st). The website gives people several avenues by which to explore the collection—many of them speaking to past iterations of classification, especially the medieval forms. A visitor can search artifacts by acquisition date, acquisition source, type, material, subject, media, et

[47] An informal survey of makerspaces in John Burke's *Makerspaces: A Practical Guide for Librarians* shows 51% of makerspaces being housed in public libraries. (Additionally, 36% are in university libraries; 9% in school; 4% in "other" spaces.)

[48] Google Cardboard is a cheap way to convert a smartphone into a virtual reality platform. It is a case meant to be made from cardboard to hold a the smartphone while running a virtual reality application.

cetera. (See figure 9.1.) As the search is narrowed, the scope of the collection is revealed to the user. In systems like the DDC, the focus on locating a text channels the user into a restrictive subclass that occludes other possibilities. With Two Way Street, the rest of the collection, including what is omitted by the user's search, becomes part of the context. (See figure 9.2.)

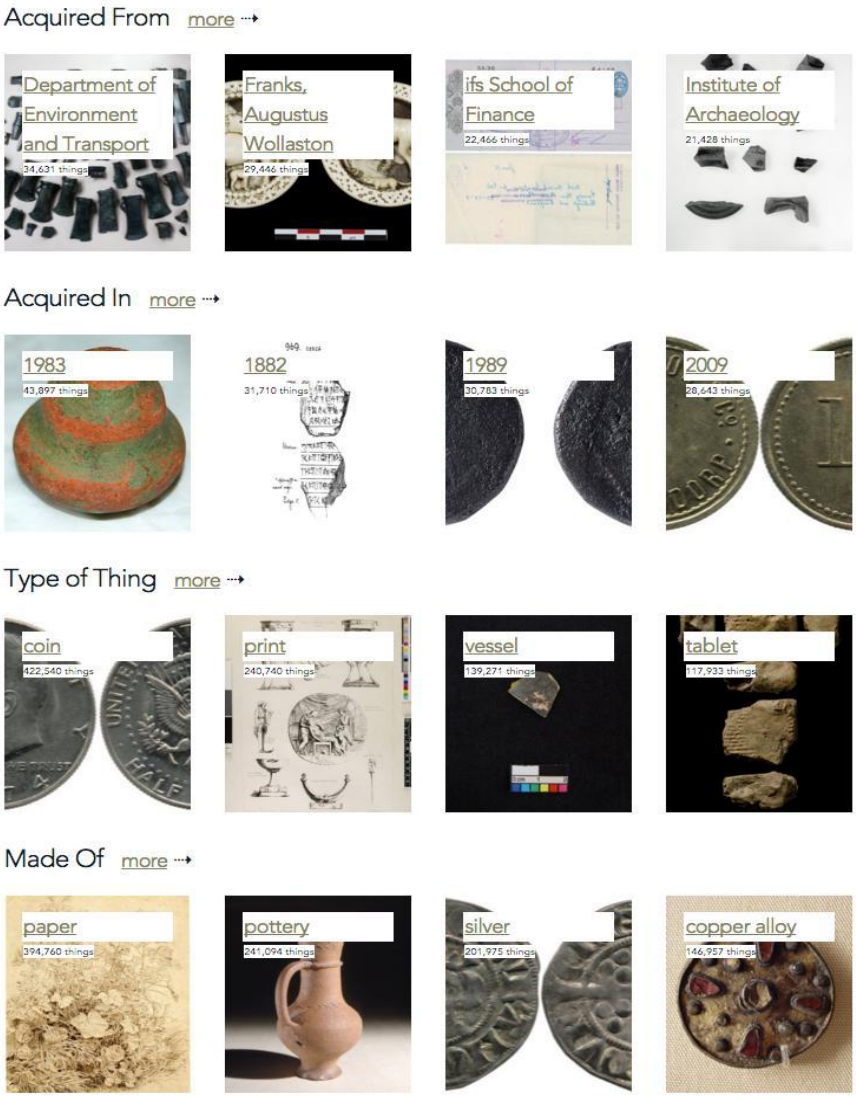


Figure 9.1

The main page of Two Way Street offers a multitude of ways to search their digital collection. Screen capture from *Two Way Street*; twoway.st. Web. Jan. 30, 2016.

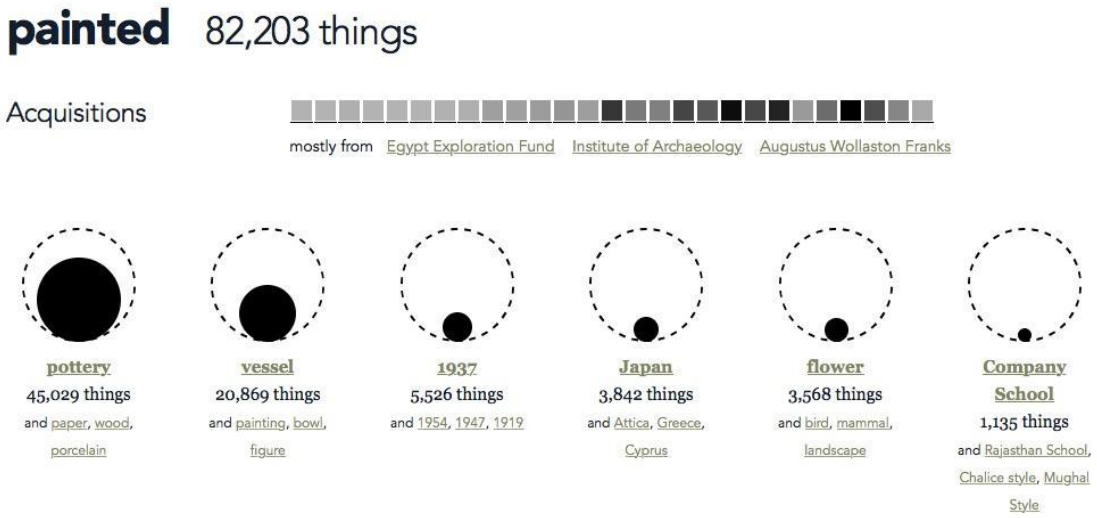


Figure 9.2

After selecting a form of classification, the Two Way Street interface still provides the user with metadata about the "other" categories, both external to and within the subclass. Screen capture from *Two Way Street*; twoway.st. Web. Jan. 30, 2016.

These counter systems can also influence the traditional collection of the library. What if my stories—the ones about my brother, or my neighborhood, the forgotten histories of ghost towns—matter just as much as those of Alexandria and Melvil Dewey? Library makerspaces combined with a more open model of classification allow me to contribute to the library, rather than simply borrow from it. The Public Library of Cincinnati and Hamilton County's makerspace, for example, has recently (January 2016) installed an Espresso Book Machine, capable of creating a professional-quality paperback book from a computer file within minutes. The library also offers ISBN, barcoding and Library of Congress Control Numbers (cincinnatilibrary.org). A self-published book can be produced and submitted into the library's physical collection by the user or it can be scanned in and added to their digital collection. Moreover, the author of the text is able to create some of the metadata used by the cataloging librarians to classify the text within the collection. Whereas the Great Library of Alexandria and its progeny (DPLA included) aspired to collect all the written work in the world to benefit a privileged few, making the process of collection development visible and accessible promotes the sort of democracy libraries have claimed to champion over the last century.

**Areas for future research**

Alternate forms of memory challenge the faulty and narrow-minded conceptions of history provided by dominant institutions of power like the APL. Counter systems also provide us with unique views of history that can enrich the traditional library. The Little Free Library system for example could benefit from a comprehensive quantitative study into its usage. Such a study could reveal the patterns of circulation and usage of the system as well as more clearly defining its actual audience (and contrasting it with the intended audience).

User experience studies are likely the best tools for conducting this sort of research; however, many of the user experience studies do not involve memory as an essential part of the process. Future inquiries into library (and counter system) design and usage needs to include, if not foreground, the idea of memory. Whereas most library UX studies would focus on how a patron accesses and uses a particular system, a UX study on memory systems would look at the ways (both material and personal) that a patron uses to find certain information. The memory study would acknowledge and differentiate those moments when a patron finds "new" information versus the moments of recollection sparked by information. This sort of study would of course require a multidisciplinary approach that involves a take on memory not provided for in this dissertation—cognitive psychology.

Also in the recovery of memory we need to go beyond the traditionally-published print and alphabetic text forms of remembering. Oral histories, objects and artifacts, zines, visual arts, and performative rhetorics all deserve to be included as parts of the library collection. Recognizing the history of the book as simply a vehicle of memory and realizing we now have many means by which to collect different and often marginalized forms of memory is integral to creating a greater library collection. The continued development of the DPLA will play a significant role in this endeavor; however, active participation of the public in the form of "spin-off" programs is needed.

Now more than ever, libraries have the capability to create vast and inclusive collections of a multivariate of materials. An now more than ever they need to engage the public—not just through their collection and structures, but by realizing the why counter

systems come into existence and acting accordingly, whether that means co-opting the system, competing with it, or fostering subversion. Memory comes in many forms and each deserves a place where it can be easily found.

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APPENDIX:

**List of acronyms**

ALA- American Library Association

ALPHA- Alpha Landmark Preservation and Homeowners Association

APL- American Public Library

CHAT- Cultural-historical Activity Theory

CMS- content management system

DDC- Dewey Decimal Classification

DPIL- Dolly Parton Imagination Library

DPLA- Digital Public Library of America

LFL- Little Free Library

NCTE- National Council of Teachers of English

NYLA- New York Library Association

NYPL- New York Public Library

OCLC- Online Computer Library Center (formerly Ohio College Library Center)

OMA- Office for Metropolitan Architecture (Seattle)

SCA- Speech Communication Association