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# Sure Imagination: Distinguishing Mnemotechnics from Spatial Mnemonics

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Abstract

The term "mnemotechnics" has been misinterpreted by scholars due to a lack of a clear and concise definition available for reference. Though there are contemporary scholarship references to mnemotechnics, these references avoid a definition and are often in a context that does not consider how ancient rhetoricians utilized the practice. Without a concise and unified definition, the term mnemotechnics takes on a variety of divergent meanings through different scholarship, preventing a similarity in terms to ideas and obscuring the practice of the rhetoricians who utilized mnemotechnics. In this thesis, the writings of Quintilian, Augustine of Hippo, and the anonymous author of the *Rhetorica ad Herennium* — referred to as Pseudo-Cicero — are evaluated alongside contemporary works by Mary Carruthers and Lina Bolzoni to create a clear definition for mnemotechnics in three parts. This newly clarified definition is then compared to works utilizing mnemotechnics to understand the impact that a lack of a clarified definition has caused. Scholarships relating to multiple disciplines that utilize mnemotechnics are then presented in which usages of mnemotechnics do not align with the clarified definition. Finally, scholarship that could benefit from this clarified definition is offered to illustrate points of clarity for where a long misinterpreted rhetorical practice can be understood and new academic conversations about mnemotechnics can be had.

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**Introduction: On the Intent of This Thesis**

Mnemotechnics, a seemingly "unimportant branch of human activity" (Yates xi) as stated

in the preface of English historian Frances Yates' famous history of mnemonic systems, *The Art*

*of Memory*, has long lived in footnotes of scholarship—an unfortunate situation for historians

and rhetoricians looking to study or analyze historical tools and practices of memory. A term

colloquially understood as a speech memorization tool utilized by classical rhetoricians,

mnemotechnics does not have a clear definition. Instead, mnemotechnics is described by

contemporary rhetoricians as a memory assistance technique that treats memories like objects in

a familiar space. Remembering the order and placement of these objects assisted orators with

memorizing and organizing speeches by attaching meaning to those objects. As practiced by

ancient orators, however, mnemotechnics was a much more complex and inventional process.

The loss of the inventional nature of mnemotechnics has not only caused modern scholarship on

memory to make incorrect assumptions about ancient writings discussing mnemotechnics'

application, but it has also limited the ways that disciplines like the rhetoric of place, memory

and religious studies, and video game design discuss the relationship between space and

memory. When we rely only on modern understanding of mnemotechnics, we lose both the

knowledge of the ancient rhetoricians and how that knowledge might help us reconsider the roles

of memory and space in contemporary disciplines.

Yates disagrees with modern reductionist descriptions of mnemotechnics, believing

mnemotechnics to be a more complex practice than its small footprint in history would indicate.

Despite the claim of unimportance in her preface, Yates takes several opportunities in the first

chapter of *The Art of Memory* to challenge definitions for mnemotechnics that reduce the

practice to a memory trick. Beginning by dismissing the idea that mnemotechnics can be reduced

to a simple practice of association, Yates insists the relationship of objects in space "hardly conveys what the artificial memory of [rhetoricians utilizing mnemotechnics] may have been like" (4), instead alluding that someone "attaching notions to the objects remembered in the places" (3) would be closer to the intentions of rhetoricians utilizing mnemotechnics. While never defining mnemotechnics specifically, Yates comes closest to a definition when she describes Quintilian's description of a "system… using signs like an anchor through which a whole sentence would come into mind" (23), stating, "[this] is in fact what we should call mnemotechnics" (23). Later, Yates clarifies that "modern associations [of mnemotechnics are] inadequate as a description of this process" and Quintilian's description of anchors would not lead contemporary rhetoricians to exactly what mnemotechnics is (55). As Yates—whose works historicize the range of mnemonic systems dating from Simonedes of Ceos through Gottfried Liebniz—is one of the most referenced historians of mnemonic systems, her lack of a clear definition of mnemotechnics that includes the intention of the rhetoricians utilizing it as a system of generation, showcases the contemporary misinterpretation of mnemotechnics. Most noticeably, the "modern association" (55) of Yates' statement of inadequacy can be seen as the spatial mnemonic technique of the memory palace, where one associates words or phrases with objects imagined within a familiar room. The memory palace, with this association, has been conflated with mnemotechnics because contemporary rhetoricians have lost the importance of the spatial relationship of the objects of memory and, through this loss, the generative nature of mnemotechnics that Yates alludes to, and its ancient practitioners understood. This work seeks to solidify the definition of mnemotechnics by de-associating it from the spatial mnemonic tools it has been conflated with, and to analyze the impact of the lack of a clear definition on the study of mnemotechnics.

I will begin the first chapter by establishing a definition of mnemotechnics that aligns with the practice of mnemotechnics utilized by the ancient rhetoricians. Returning to the third book of the *Rhetorica ad Herennium,* the second book of Cicero's *De Oratore,* the eleventh book of Quintilian's *Instituto Oratoria,* and Augustine of Hippo's *Confessions* as works utilizing mnemotechnics as a "practical application … [of] general principles and a certain degree of theory" (Yates 4), I will develop a clearer definition of mnemotechnics. This clarified definition of mnemotechnics, a practice of invention utilized by rhetoricians for understanding a greater meaning through examining the relationship between memories, is outlined through three distinct points drawn from the practices referenced in these works.

The first point of this clarified definition is that rhetoricians practicing mnemotechnics talk about memories as though they were material objects arranged in physical space. As mnemotechnics is an inventional tool in opposition to spatial mnemonics as a memory tool, the memories are not material objects in physical space, but the language utilized to understand the inventional system is like language referencing physical space. For example, the *Rhetorica ad Herennium* describes rhetoricians imagining objects representing memories in spaces "clearly visible" in the imagination, and "of moderate size . . . for when excessively large they [the spaces] render the [objects] vague, and when too small are incapable of receiving an arrangement." (Pseudo-Cicero 3.19) Pseudo-Cicero continues with language describing how well lit the imagined space should be, and even goes as far as to give an approximate distance between the objects, even though the objects themselves and the space are entirely imaginary.

The second point is that the imagined spatial relationship between an object representing the memory of an object, person, or event to another object representing the memory of another object, person, or event references a larger relationship between the two memories. As Pseudo-

Cicero writes, objects in an imagined space are "very much like wax tablet(s) or papyrus, [with] images like script and the [arrangement] like reading." (Pseudo-Cicero 3.17). To Pseudo-Cicero, it is the relationship of the objects in the imagined space that builds the structure of the words into sentences with meaning. While words exist in their own meaning, it is the context of the words around them that builds the greater relationship. This larger relationship within the boundaries set by the rhetorician is the "greater truth" that mnemotechnics seeks to discover or create as the system of invention.

The third point is that the relationship of an object representing the memory of an object, person, or event to another object representing a memory has spatial boundaries that are determined by the rhetorician. These boundaries define the invention the rhetorician seeks to create or understand, so that the relationship cannot be expanded indefinitely. Pseudo-Cicero states this more directly, describing backgrounds as "such scenes as are naturally or artificially set off on a small scale, complete and conspicuous, so that we can grasp and embrace them easily by the natural memory... in a series, so that we never by confusion in their order be prevented from following the image — proceeding from any background we wish, whatsoever its place in the series, and whether we go forwards or backwards" (3.16-17). This boundary is often imagined in a space, such as a room within a house, and can be within other boundaries and must be created to define the meaning the rhetorician seeks to understand.

In this definition, mnemotechnics can be seen as distinct from a spatial mnemonic tool, as it is often misconstrued today. Setting the boundary between mnemotechnics and spatial mnemonics, such as the memory palace, can also give insight into where these terms began to be

combined in the 1400s. Comparing the historical records of *The Art of Memory* gives a foundation and reference point for the foremost scholar of mnemonic systems, and can help showcase when mnemotechnics was utilized for invention over time.

After we understand the distinction between a clarified definition of mnemotechnics and spatial mnemonics as a memory tool, more modern scholarship can be analyzed for how frequently mnemotechnics and spatial mnemonics are used interchangeably. In the second chapter of my thesis, I will analyze *The Craft of Thought* and *The Book of Memory* by Mary Carruthers, and *The Gallery of Memory* by Lina Bolzoni for how often the word "mnemotechnics" or words with the same meaning as "mnemotechnics," appear. I will then consider whether our clarified definition of mnemotechnics fits with Carruthers' and Bolzoni's usage, where the relationship of space and memory is used as a tool of invention, or whether Carruthers' and Bolzoni's language is obscured, thus leading to misinterpreting the intention of mnemotechnics. With both scholars being heavily referenced in recent scholarship, inconsistencies within Bolzoni's and Carruthers' work can be implied to extend to the works that reference them as well. Through this analysis, I will highlight how the word "mnemotechnics" as used by contemporary rhetoricians instead of more accurate terminology can impact how scholars interpret the examples and points given within arguments, and how the points and examples may not relate to the practice of mnemotechnics as used by classical writers.

Lastly, I will turn to the way that scholarship in other disciplines, such as the rhetoric of place, memory and religious studies, and video game design, treats the relationship of space and memory similarly to the way ancient rhetoricians utilized mnemotechnics. Like the rhetoricians who practiced mnemotechnics, scholars in these other disciplines use the spatial relationships between objects to represent and understand greater truths. For example, Jeff Rice's "Networks,

Place, and Rhetoric" from *Digital Detroit: Rhetoric and Space in the Age of the Network* explores four important areas of Detroit and the relationship of these sections of the city to other sections of the city; Dave Tell's "Beyond Mnemotechnics: Confession and Memory in Augustine" explores how Augustine of Hippo's objects in his famous "fields of memory" allows Augustine to perform a rhetorical approach to his faith through confession; and "Spatial Mnemonics Using Virtual Reality" from the *Proceedings of the 2018 10th International Conference on Computer and Automation Engineering* addresses how manufactured spaces within virtual reality can be used to improve spatial mnemonics and uncover greater relationships between ideas. Yet, none of this work ever references the term "mnemotechnics," perhaps because of the lack of scholarship or modern scholars' poor understanding of mnemotechnics. Through the work in this thesis, rhetoricians of place, scholars of culture and faith, and video game designers could open a new avenue of multidisciplinary growth with more tools to evaluate the relationship of memory and space intentionally. Finally, I will conclude this work with offers of insight for scholars who may misuse the term "mnemotechnics" within their works, to open avenues of growth and connect scholarship that otherwise may be isolated from the conversation about mnemotechnics.

**Chapter 1: On the Art of Memory and Mnemotechnics ' Interwoven History**

In discussions of mnemotechnics, there is a similarity in its execution and intention to spatial mnemonics that has caused mnemotechnics to be used interchangeably with spatial mnemonics. This assumption is not without merit, as many of the tools both systems utilize are nearly identical. However, even modern interpretations understand there is a difference. Specifically, spatial mnemonics use its techniques to create a one-to-one relationship between what is remembered and what the remembered symbol represents. This practice is most famously represented in the "mind palace" or "memory palace" image: an imagined space where an applicator places memories on display for recall. In contrast, mnemotechnics considers *where* these symbols are placed in imagined space and the relationship the symbols have to other symbols. While there are similarities in the tools that both mnemotechnics and spatial mnemonics use, clarified below, the differences between the two processes have distinct and unique points that, when ignored, allow for the elimination of a practice done for thousands of years in favor of a memory tool. This chapter reviews the writings of Pseudo-Cicero, Quintilian, and Augustine of Hippo to argue for a more refined view of mnemotechnics as a system of invention that utilizes language akin to physical space to evaluate related memories whose relationship is greater than the sum of their whole but bound to spatial boundaries as a differentiation between mnemotechnics and spatial mnemonics.

To better understand these points, a new clarification needs to be made for mnemotechnics based on its utilization and what makes the practice distinct from spatial mnemonics. Such a definition will pull the term from obscurity into observation and understanding. This definition can be understood in three points, found in the writings and practices of three primary works directly referencing or utilizing mnemotechnics: Pseudo-

Cicero's *Rhetorica Ad Herennium,* Quintilian's *Institutio Oratoria*, and Augustine's *Confessions*. Each of these classical rhetoricians is colloquially understood to be a key figure in writing or teaching memory as rhetoric, and each writes directly about mnemotechnics, offering enough time between their writings to chart the evolution of mnemotechnics. To understand what is incorrect about the assumption of spatial mnemonics and mnemotechnics being interchangeable terms, we need to return to the beginning of memory as a rhetorical study.

The origin of mnemotechnics is cited in Pseudo-Cicero's account of a poet named Simonides found in *De Oratore.* While retold again in *Institutio Oratoria,* as well as every account of the origin of memory and mnemonic systems by any writer looking to source a chronology of memory, the origin story is the clearest in its original retelling:

> There is a story that Simonides was dining at the house of a wealthy nobleman named Scopas at Crannon in Thessaly, and chanted a lyric poem which he had composed in honor of his host, in which he followed the custom of the poets by including for decorative purposes a long passage referring to Castor and Pollux; whereupon Scopas with excessive meanness told him he would pay him half the fee agreed on for the poem, and if he liked he might apply for the balance to his sons of Tyndareus, as they had gone halves in the panegyric.

> The story runs that a little later a message was brought to Simonides to go outside, as two young men were standing at the door who earnestly requested him to come out; so he rose from his seat and went out, and could not see anybody; but in the interval of his absence the roof of the hall where Scopas was giving the banquet fell in, crushing Scopas

himself and his relations underneath the ruins and killing them; and when their friends

wanted to bury them but were altogether unable to know them apart as they had been

completely crushed, the story goes that Simonides was enabled by his recollection of the

place in which each of them had been reclining at table to identify them for separate

interment; and that this circumstance suggested to him the discovery of the truth that the

best aid to clearness of memory consists in orderly arrangement.

He inferred that persons desiring to train this faculty must select localities and form

mental images of the facts they wish to remember and store those images in the localities,

with the result that the arrangement of the localities will preserve the order of the facts,

and the images of the facts will designate the facts themselves, and we shall employ the

localities and images respectively as a wax writing tablet and the letters written on it.

(2.86.352-354)

Beginning *The Art of Memory* with another retelling of the tale, Frances Yates attributes

Simonides as "the inventor of the art of memory" (82) and "of artificial memory" (206) citing the

reference above. Quoting *On the Ideal* Orator, Yates defines the "art of memory" as "like an

inner writing. . . [like how] the letters of the alphabet can write down what is dictated to them

and read out what they have written" in *The Art of Memory* through a quote from the *Rhetorica*

*Ad Herennium* (qtd. 6). It is easy to see the loosely defined art of mnemotechnics as aligned with

the phrase and intentions of an art of memory. The etymology of mnemotechnics implies a level

of practical application, while the art of memory utilizes "art" in the sense of being an order or

discipline to behavior. With the banquet of Simonides celebrating a case in which techniques of

memory could have practical application, it is convenient to infer that the descriptor would be the one of practicality, mnemotechnics, over the art of memory. This misunderstanding can be further illustrated by recognizing the many similarities of recall tools and how mnemotechnics may be comprehended. Though there are several arts of memory, the techniques of mnemotechnics most closely align with an art of memory that can be described as *spatial mnemonics*, a mnemonic tool utilizing spatial memory as a device for recall. Henceforth, all relations will be mentioned in the similarities and distinctions of mnemotechnics to spatial mnemonics instead of the art of memory. While in some writings spatial mnemonics are synonymous with architectural mnemonics, spatial mnemonics are inclusive of spaces outside of three-dimensional representations, such as the placement of text blocks on a page, while architectural mnemonics only covers representations of three-dimensional spaces. As spatial mnemonics includes architectural mnemonics within its scope, but architectural mnemonics is limited only to three-dimensional spaces, spatial mnemonics becomes a more apt comparison to mnemotechnics as mnemotechnics evolves beyond only imagining three-dimensional spaces.

As in Simonides' example, remembering situations or arrangements exactly as they are becomes mentally taxing to keep in order and only allows the orator to remember what can be remembered in its entirety. Storing images of the facts that designate the facts themselves allowed the poet to need to remember only representations of memories and enabled those representations to be recalled later. More clearly, Quintilian explains the process when outlining mnemotechnics in *Institutio Oratoria*, stating that one needs

> to distinguish something which has been written down or merely thought of by some particular symbol which will serve to jog the memory; this symbol may have reference to the subject as a whole, it may, for example, be drawn from navigation, warfare, etc., or it

may, on the other hand, be found in some particular word. (For even in cases of forgetfulness one single word will serve to restore the memory.) However, let us suppose that the symbol is drawn from navigation, as, for instance, an anchor. (11.19)

As a small object tethered and holding a larger container, Quintilian's use of the word "anchor" is a strong metaphor for holding ideas in place, and the designation of the word for his symbol's application, even when outside of nautical memories, seems appropriate. The symbols serve as reference points for their representational memories, and their arrangement thus represents the order in which memories can be retained, recalled, or evaluated. While "symbol" is the most apt word, a symbol concerning mnemotechnics is closer to being a system or pathway than a mark or representational character. While not directly used in Quintilian's writing, the representation of a symbol can also align with "images" as introduced by Pseudo-Cicero. An image is "a figure, mark, or portrait we wish to remember" (*Rhetorica ad Herennium* 3.16). This distinction is discussed in more detail below.

"Backgrounds" as an imposition of the order are required for maintaining structure; allowing the memory to frame representational objects is synonymous with Simonides' "localities," in that the localities form the context in which symbols are utilized. Pseudo-Cicero alluded to these tools of order, though often real places, as capable of being made in imagined spaces; he wrote: "[I]f we are not content with our ready-made supply of backgrounds, we may in our imagination create a region for ourselves and obtain a most serviceable distribution of appropriate backgrounds" (3.19). This limitless ability to match backgrounds to their symbols allowed any set of symbols to be properly contextualized to be inherently related to one another in the memory of the one recalling the memories. This context and the relationship of the

memories to one another form structure, and that structure helps support the artificial memory through predictable and understandable frameworks, supporting what one could remember and deduce from their memories.

Backgrounds, images, and symbols form the core of symbolic memory, and the strength of visual representation in an imagined physical space was impactful for the technique's ability to be taught, understood, and utilized. Backgrounds, images, and symbols are foundational to both spatial mnemonics and mnemotechnics independently, though that they each use both does not make spatial mnemonics and mnemotechnics interchangeable. Reading the account of Simonides with these tools raises the notion that this association of chairs as symbols for whoever was occupying them in the background of the banquet hall may have been the full scope of the art of memory or, in short, a spatial mnemonic. Quintilian quietly dismisses this interpretation of Simonides' writing as being equivalent to the system he is referencing when writing:

> I am far from denying that those devices may be useful for certain purposes, for example, if we have to reproduce several names in the order in which we heard them. Those who use such aids place the things that have to be remembered in localities which they have previously fixed in the memory; they put a table, for instance, in the forecourt, a platform in the hall, and so on with the rest, and then, when they retrace their steps, they find the objects where they had placed them. (11.23)

Clearly, simple recall was not what the rhetorician saw as the limits of mnemotechnics' ability nor even its usefulness. While both utilize backgrounds, images, and symbols, in Quintilian's writings, a clear and distinct understanding of the difference between the two practices exists.

The similarities of mnemotechnics and Simonides' spatial mnemonic also do not assess the practicality that the etymology of *technics* in mnemotechnics is referencing. Simonides'

famous banquet may show a practical *example* of where memory in an image space can be utilized, but the practicality of mnemotechnics came from how memory could be used as a tool of invention to arrive at conclusions and derive perceived truths conveniently and practically. More than the simple association of memories to familiar spaces, mnemotechnics is intended to derive truth from memories by reorienting and reimagining the relationship between them. As Pseudo-Cicero describes in *Rhetorica ad Herennium*:

> [Imagine] a prosecutor has said that the defendant killed a man by poison, charged the motive as inheritance, and declared many witnesses and accessories to the act. If to facilitate our defense, we wish to remember this first point, we shall first form an image of this background. Picture the man in question as lying ill in bed… Place the defendant at the bedside, holding in his right hand a cup, and in his left tablets, and on the fourth finger ram's testicles. In this way we can record the man who was poisoned, the inheritance, and the witnesses. In like fashion we shall set the other counts of the charge in backgrounds successively… and properly arrange the patterns of the backgrounds, carefully imprinting the images, easily succeed in calling back to mind what we wish to understand.… But such an arrangement of images succeeds only if we use our notation to simulate the natural memory. (3.21)

Beyond simply seeking to understand what is accused through mental image, Pseudo-Cicero implies that it is the relationship between the specified description and its background that reveals the truth. Pseudo-Cicero recognizes the image background of the poison as related to the background of the motive, and the background of witnesses and accessories can be arranged

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variously to unveil multiple perspectives, each leading closer to an objective truth. Each of these objects is a symbol, as Quintilian describes, and is inherently tethered to all its relations both within the context of the mental structure and to truths that are not immediately apparent within the description; he writes, "I pass by the fact that there are certain things which it is impossible to represent by symbols" (11.25). It is through imagining these symbols within space that the truths can be seen from all perspectives, like reveling in the presence of a statue at an art exhibit. While spatial mnemonics can house these backgrounds as well and hold Quintilian's symbols to build the association, no truth can be inferred by memorizing the man in question on his bed, the defendant at the bedside, or the order in which one is remembered before the other. It is by understanding each symbol's relation to the others and our perceptions of the arrangement that the inventive nature of mnemotechnics can be utilized. This is the practical application that rhetoricians employed and that was nearly declared in Yates 'statement of mnemotechnics being more than memory association. Mnemotechnics, by Quintilian's admission, "bears some resemblance to the mnemonic system which I mentioned above, but if my experience is worth anything, is at once more expeditious and more effective" (11.33). Without a clarified distinction between mnemotechnics as a tool of rhetorical invention and spatial mnemonics as a memory device, there is no reason to evaluate deeper than the assumption that the two similar, yet distinct, practices have unique purposes and importance. Thus, to grant mnemotechnics a new clarity for its unique purpose as a rhetorical invention, a clarified definition for the term is necessary. The remainder of this chapter will offer three arguments for redefining mnemotechnics as a mode of rhetorical invention and not a word that is interchangeable with a mnemonic device. These three arguments are separated into three distinct points, each utilizing

examples from Pseudo-Cicero, Quintilian, and Augustine to defend the point of mnemotechnics as a unique mode of rhetorical invention.

**<u>Defending a Changed Definition</u>**

<u>Point One</u>: *Rhetoricians practicing mnemotechnics talk about memories as though they were material objects in physical space, and the language utilized to understand the inventional system is like language referencing physical space.*

Pseudo-Cicero sets the precedence for images early in his work, writing, "An image is, as it were, … a figure, mark, or portrait of the object we wish to remember; for example, if we wish to recall a horse, a lion, or an eagle" (3.16). Images, as the avatars for symbols, are the representations of the symbols, but it is Pseudo-Cicero who cements the idea that these images are objects. With tangibility assisting the ability for one to summon an image to their mind, these objects are referenced like objects are, with an existence in a place, which is a background. Pseudo-Cicero continues,

> These backgrounds ought to be of moderate size and medium extent, for when excessively large they render the images vague, and when too small often seem incapable of receiving an arrangement of images. Then the backgrounds ought to be neither too bright nor too dim, so that the shadows may not obscure the images nor the luster make them glitter. I believe that the intervals between backgrounds should be of moderate extent, approximately thirty feet; for, like the external eye, so the inner eye of thought is less powerful when you have moved the object of sight too near or too far away. (3.19)

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The relationship of images to background is more completely related in *De Oratore*, under the names "forms and bodies" and "localities," respectively. On the relationship of images and backgrounds, Pseudo-Cicero writes,

> These forms and bodies, unlike all the things that come under our view, require an abode, inasmuch as a material object without a locality is inconceivable. Consequently … one must employ a large number of localities which must be clear and defined and at moderate intervals apart, and images that are effective and sharply outlined and distinctive… so that we keep hold of as it were by an act of sight things that we can scarcely embrace by an act of thought. (2.87.357-358)

It is this abode and the familiarity, kept at moderate intervals particularly when using language that was a specific unit of measurement, that set the groundwork for memory to be seen as existing within an imagined space. Memory, as a part of mnemotechnics, is not just an image, but an image and the image's placement within an imagined space. It is the image and image placement that is central to memory-based invention. The language used to emulate this placement brings context to the emplacement of the images representing memories within that space and gives the tools to understand and represent that placement in relationship with other memories.

In *Institutio Oratoria*, Quintilian maintains Pseudo-Cicero's language of images and puts it within the background of the rooms of a house, which would come to be the most widely accepted background for orators and scholars after its publication. Treating images as art pieces within a home, Quinitilian writes,

> The first thought is placed, as it were, in the forecourt; the second, let us say, in the living-room; the remainder are placed in due order all round the *impluvium* and entrusted

not merely to bedrooms and parlors, but even to the care of statues and the like. This

done, as soon as the memory of the facts requires to be revived, all these places are

visited in turn and the various deposits are demanded from their custodians. (11.19-20).

This "visiting" of each room in an order gave structure to recall and helped build a flow to the

connection of images and their symbols. Quintilian only continues to highlight language used to

refer to objects in physical space, and physical space itself, throughout the text in more subtle

and more ingrained ways. By writing depth so eloquently through the passage of rooms,

Quintilian gives a third dimension to the imagined space, having it more effectively imagined

when drawing inspiration from real life or imagined structures.

The most concrete example, however, comes from Augustine of Hippo's *Confessions*,

where his writings on memory take the framework outlined by his ancestors and confirm its

fundamentals as to application more than the theoretical teaching of its application. When talking

about his ability to recall, he writes,

I demand that what I wish should be brought forth, and some things immediately appear;

others require to be longer sought after, and are dragged, as it were, out of some hidden

receptacle; others, again, hurry forth in crowds, and while another thing is sought and

inquired for, they leap into view, as if to say, "*Is it not we, perchance?"* These I drive

away with the hand of my heart from before the face of my remembrance, until what I

wish to be discovered making its appearance out of its secret cell. (10.8.12)

It is the words "dragged," "hurried," and "leap" that give weight to the images of which he

speaks, the final missing component in the image's three-dimensional background. These words

give permanence and intention to the way images live within Augustine's three-dimensional

space.

To better understand mnemotechnics' inventional systems, where the proximity of images has an inherent relationship with the memories and images within a background, the use of language that integrates spatial terms—proximity, for example—allows us to understand the inventional system through the language of its tools. It is through language that the tool of memory outlined by Pseudo-Cicero, Quintilian, and Augustine can be utilized to describe a space through which images are placed and recalled in three dimensions within the mind of the rhetorician. This first point solidifying the language utilized sets the foundation for the subsequent two points of the clarified definition of mnemotechnics.

Point Two: *The imagined spatial relationship between an object representing the memory of an object, person, or event to another object representing the memory of another object, person, or event references a larger relationship between the two memories.*

With an established language to speak about both systems of spatial recall, our second point is the main distinction between mnemotechnics and spatial mnemonics. As both systems utilize backgrounds, images, symbols, and spatial language, if one looks only at the first point of our definition, the two systems remain indistinguishable from one another, adding to the confusion. It is through the knowledge that mnemotechnics utilizes spatial language to place memories in relation to other memories that distinguishes the tool of invention. This relationship, existing within the backgrounds and the imagined physical space, holds similar relationships to objects within physical space, as far as objects *closer* to one another have a closer relationship than objects *further* from each other, or how objects in a sequence have a sequential relationship

to each other. Memories gain the same intrinsic properties through their similar relationships as objects in space by using the same language.

Pseudo-Cicero, once again, references this idea first in *Rhetorica Ad Herennium,* though in a more indirect way than in his other writings. The idea of relationship is broken across two paragraphs, instead of addressed succinctly in one. In the first paragraph, Pseudo-Cicero writes,

I know that most of the Greeks who have written on memory have taken the course of listing images that correspond to a great many words so that persons who wished to learn these images by heart would have them ready without expending effort on a search for them. I disapprove of their method on several grounds. First, among the innumerable multitude of words, it is ridiculous to collect images for a thousand. How meagre is the value these can have, when out of the infinite store of words we shall need to remember now one, and now another? (3.23)

He follows this statement in the next paragraph with "I included memorization of words to enable us to get verse by rote, but rather as an exercise whereby to strengthen that other kind of memory, the memory of matter, which is of practical use. . . Indeed, there is never a moment when we do not wish to commit something to memory, and we wish it most of all when our attention is held by business of special importance" (3.24). The first paragraph—advising not to have a single image always represent a single idea or memory, which was suggested by practitioners before Pseudo-Cicero as a way to unify thoughts—gives way to the implication that rote memorization is not the true intention of mnemotechnics, and that mnemonics is a tool to teach students rather than the technique itself. As a teaching tool, mnemonics teaches students how to more efficiently use spatial recall tools. By teaching how to utilize spatial mnemonics in its simplest terms, but also advising against limiting the usefulness of images and backgrounds

for one's own needs, or the relations to other images and backgrounds, Pseudo-Cicero sets the groundwork for it to be understood by any reader that it is the relationship of the images within the background that is of practical use. Dynamically understanding that the "lion" or "eagle" of his images could represent a multitude of memories or ideas means that it is the context of the other objects within the background of the memories that enables one to understand what the image does and does not represent. Recognizing that an image of a lion could mean "pride" when contextualized around images such as flags, homelands, or awards, or an image of a lion could represent "the savannah," or "regality," or "a very large cat," is only clarified with the context of other images in the background. Pseudo-Cicero advises against lions always representing "pride" and instead to use them in larger relationships.

As with the concepts of spatial language, it is once again Quintilian who offers the perspective of time, having over a century between *Rhetorica Ad Herennium* and his education. Additional practice of mnemotechnics by himself and his contemporaries gives Quintilian more clarity in his explanation as he addresses the relationship of memories to other memories. In *Institutio Oratoria,* he clarifies Pseudo-Cicero's point, "Consequently, however large the number of these which it is required to remember, all are linked one to the other like dancers hand in hand, and there can be no mistake since they join what precedes to what follows, no trouble being required except the preliminary labor of committing the various points to memory" (11.20). This relationship, implying memories being "linked," builds on both the system of recall and its intentions. It is no mistake that Quintilian chooses to use the analogy of a line of dancers since his intention of having several dancers is to address a unified whole that is greater than the skills of any individual dancer, the "dance." Through the phrase "hand in hand," we recognize that it is each dancer's role to perform a single aspect of the dance, but only by the relationship of

the unified dancers do we understand the full intention and splendor of the dance in its intended form. Using Quintilian's metaphor, mnemotechnics intends to assemble memories like dancers to understand the dance. Each follows what preceded in their system, and together creates a narrative or expression meant to be the greater understanding of invention that mnemotechnics seeks to clarify.

Describing memory as both finite within the human mind and infinite outside of the human experience, an "inner chamber large and boundless that… is a power of mine, and appertains unto my nature; nor grasp[s] all that I am" (10.8.15), Augustine most clearly explains that the categorization of memory is imperative for understanding a greater whole, which he describes as Truth. While too vast to ever contain what Augustine believes is Truth within the mind in its entirety, it is through the lens of memories that humanity can seek to find Truth through evaluation. Augustine claims that memory is crucial for humans to capture the unattainable Truth from perspectives offered by memories, and their relationship alludes to greater Truth. By "ascending the stairs into Memory," Augustine imagines a space not unlike a library where physical vestiges of his memories, either in images or representational senses, can be harnessed and called upon to "the mountains, and waves, and rivers, and stars, and that ocean which I believe in" (10.8.15) of memory. This ability to remember images, more easily grasped in his mind, allows the images of their representations to call upon memories otherwise forgotten. These memories are then reexamined through the narrative in which they were interpreted, to be inspected for greater truths in "the same vast spaces between as when I saw them abroad" (10.8.15). By giving oneself the ability to recall one's life, that person then could understand and repent for their sins, to fully understand the one universal truth to Augustine: God. While the Ancient Greeks may have interpreted memory to understand the true soul of a

situation, to Augustine mnemotechnics within a space that defined what could be understood was the closest one could come to understanding God.

Point Three: *The relationship of an object representing the memory of an object, person, or event to another object representing a memory has spatial boundaries that are determined by the rhetorician.*

Recognizing the boundless ability for images to be contextualized to many memories, and for those relationships to connect beyond a scope of determination, Pseudo-Cicero does give perspective on how boundaries can be set to limit the ways that images can relate to one another. Backgrounds, already imperative for contextualizing images, act as boundaries to the possible interpretation of memories and play a role in the greater interpretation of the relationships of these memories. Describing backgrounds as

> such scenes as are naturally or artificially set off on a small scale, complete and
> conspicuous, so that we can grasp and embrace them easily by the natural memory...in a
> series, so that we never by confusion in their order be prevented from following the
> image — proceeding from any background we wish, whatsoever its place in the series,
> and whether we go forwards or backwards,

Pseudo-Cicero showcases that the arrangement and relationships of memories only have a true context to the backgrounds in which they exist (Pseudo-Cicero 3.16-17). The conspicuousness of these backgrounds gives insight into the relationship of the memories, so that the same memories against a different background may yield different contexts or insights into the greater relationship of the memories to other memories, more so than the starting point of any sequence

or arrangement. These boundaries are sculpted by rhetoricians to create the context of their backgrounds and influence the relationships of memories. The size, depth, and shape of the backgrounds can be as diverse as the images within them, allowing for many unique perspectives through these boundaries and the foundation for context for the relationships.

Quintilian, as we may expect, continues Pseudo-Cicero's explanation with additional clarity, explaining that while Pseudo-Cicero's mnemotechnics often are created in the boundaries of a house, it is not the best or only boundary one can use for mnemotechnics. He states explicitly, "What I have spoken of as being done in a house, can equally well be done in connection with public buildings, a long journey, the ramparts of a city, or even pictures. Or we may even imagine such places for ourselves. We require, therefore, places, real or imaginary, and images or symbols, which we must, of course, invent for ourselves" (11.21). It is this invention of the spaces that prevent these backgrounds from becoming too limiting. Quintilian agrees a few paragraphs later, stating "some limits must be fixed to enable us, by dint of frequent and continuous practice, to connect the words in their proper order, which is a task of no small difficulty, and subsequently to unite the various sections into a whole when we go over them in order" (11.28). Though difficult, proper boundaries are what afford the rhetorician practicing mnemotechnics the proper perspective to evaluate the relationship of memories using the language.

And, as we now may conclude, Augustine provides the clearest usage of mnemotechnics and its boundaries; plagued by the question, is "the mind too narrow to contain itself?" (10.8.15), he calls upon his now famous "fields and roomy chambers of memory" (10.8.12) to bring boundaries to his memories and their relationships with other memories so that he may know Truth, and though Truth may know God. His use of "storehouse" (10.8.12), "vast chambers"

(10.8.14), and a "place that is not a place" (10.9.16) among others in the twenty-two chapters in which he outlines memories shows Augustine's capacity for a variety of boundaries in which to frame his images for his ultimate goal, which as Frances Yates describes in the *Art of Memory,* is "one of the three powers of the soul" (79). Far more than a tool of recall, mnemotechnics is a system of invention to evaluate the invisible essence of Augustine's inner humanity.

With a full understanding of the practical use of mnemotechnics by our three rhetoricians, we can conclude that the clarified definition of mnemotechnics is a system of invention that utilizes language akin to physical space to evaluate related memories whose relationship is greater than the sum of their parts but tied to spatial boundaries. Why then, does a unique inventional technique such as mnemotechnics fade into obscurity, to be conflated with a mnemonic technique in which it shares many of the same methods but whose objectives are distinct?

By the 1200s, memory, both cultural and individual, had become a representation of power. No longer was remembering access to some objective truth as it was to the rhetoricians who were utilizing mnemotechnics, but instead, a currency to be used and displayed. The quick need to expand memory in a superficial sense made those seeking memory understand it not for what it could unlock about relations greater than the memory itself, but for what it could bring the individual. Faster ways to remember more were becoming more highly valued, and the natural evolution of need shifted the space of memory from a technique of perspective to a technique of association. Or it is humanity's ever-shifting perspective on truth that evolved away from mnemotechnics, causing a technique intending to uncover a certain perspective on what truth is to fall out of favor. If Paramendes' interpretation of reality as a changing reflection of truth evolves into more contemporary interpretations of truth, then there is no foundation for

mnemotechnics to be utilized to find that truth through reflection. If truth is attainable through

quantifiable experiences, such as framed through Descartes' rationalism or Locke's empiricism,

then is a relationship between fragments of truth reflecting into a kaleidoscope of potential truths

the way towards understanding, or is it more arduous work? If truth shifts and changes as time

marches on, and mnemotechnics does not form its conception, then there is no wonder it has not

been reclaimed, as it does not reflect what we now consider truth. Perhaps there is writing about

this yet unread to understand where truth in mnemotechnics is diluted from its original

description and intention after *Confessions*, or there is no reason at all. What is thought of as

mnemotechnics colloquially, a memory palace with defined rooms and objects, is vastly different

from how it was used by Pseudo-Cicero, Quintilian, and Augustine: as a picture worth infinite

words. However, this does not seem to be the whole reason mnemotechnics as a footnote in

history has gone unnoticed.

Yates outlines the end of the art of memory in the seventeenth century, with the advance

of the scientific method by Leibniz and the invention of the printing press. Along with writing

that "the parable which Hugo develops out of the comparison of the building, crowded with

images, with the arrival in his library of a printed book might be applied to the effect on the

invisible cathedrals of memory of the past of the spread of printing. The printed book will make

such huge built-up memories, crowded with images, unnecessary" (124), her seventeenth chapter

concludes *The Art of Memory* with the finality that "the artificial memory as part of rhetoric

belongs into the rhetorical tradition; memory as a power of the soul belongs with theology"

(389). However, Yates also discusses in the twelfth chapter on earlier difficulties, writing that

Puritan ideology saw art as contrary to pious teachings by stoking sensational and obscene

thoughts through its inventional nature. Long before the rational logic of science came to replace

the tools of mnemotechnics, the inventional tool that gave those who utilized it such prominence and ability to both recall and deduce was under fire for being against the religious system of power. By the Renaissance, mnemotechnics and spatial mnemonics were equally defiant to these systems of power, and all nuance to their differences was compressed into a single identity for the convenience of censorship. This idea is defended in Ioan P. Culianu's 1987 work *Eros and Magic in the Renaissance*, which identified concerted efforts to suppress the pagan influence of the Renaissance, including knowledge from pre-Christian societies, onwards from the sixteenth century. This compression would further obscure any differences and distinctions for these two ideas that, despite many similarities, have distinct and nuanced purposes. These distinctions, however, will remain lost without clarity in their distinction and execution. Clarifying mnemotechnics' and spatial mnemonics' distinctiveness and execution will enable them to be once again held to both their unique usages. With a clarified definition and understanding of where these terms might have begun to conflate, we can now evaluate how that definition has been adhered to, or strayed from, by more modern scholarship referencing mnemotechnics.

**Chapter 2: On Mary Carruthers, Lina Bolzoni, and Influence in the Field**

In the wake of Frances Yates' dismissive comments in *The Art of Memory*, it is unsurprising that there is not bustling scholarship on the relationship between memory and space. Many of the discussions, such as Joshua Foer's 1996 work *Moonwalking with Einstein: The Art and Science of Remembering Everything*, or Yadin Dudai's 2002 work *Memory from A to Z,* discuss this relationship as part of footnotes or within a small part of the chronology of memory, following in the footsteps of Yates' foundational work. Others, such as Jocelyn Small's 1956 work *Wax Tablets of the Mind* or Jonathan Spence's 1978 work *The Memory Palace of Matteo Ricci*, focus nearly exclusively on singular persons and their utilization of the relationship between memory and space, particularly within the confines of spatial mnemonics, with no room for mnemotechnics' inventive nature. The two scholars who are often cited on the topic of memory are Mary Carruthers, an American Eric Maria Remarque professor of Literature and English, emerita, at New York University, and Lina Bolzoni, an Italian literary critic, historian of literature, and influential political figure who is a fellow of the British Academy and national member of the Academia dei Lincei. Both Carruthers and Bolzoni understand the use of mnemotechnics and the difference between spatial mnemotechnics and spatial mnemonics. Their word choices are very deliberate, but both make assumptions in their analysis of different rhetoricians' application of invention to the relationship of space and memory based on the times in which the rhetoricians are practicing. Thus, their assumptions based on their era's practices may be confusing to the average reader. Without inherently understanding the rhetorician's practices of the time and knowing whether invention was intended as part of their practice, some of Carruthers' and Bolzoni's word choices can be assumed to be updated spellings instead of unique practices or related foreign practices.  It is these assumptions of invention and evolving

word choices that contribute to the confusion of the relationship between space and memory when the context of inventional practice is assumed instead of clarified.

Carruthers, writing widely on medieval literature and rhetoric, also writes extensively on the history of spirituality and how memory and mnemonic techniques were practiced and recorded in medieval practice. This unity of focus, spanning from books like *The Search for St. Truth: A Study of Meaning in Piers Plowman* (1973) until essays like "Mechanism for the Transmission of Culture: The Role of 'Place' in the Arts of Memory" (2008). However, it is the pairing of the successive works *The Book of Memory: A Study of Memory in Medieval Culture* (1990) and *The Craft of Thought: Meditation, Rhetoric, and the Making of Images: 400-1200* (1998) that we will examine for their unity of expression, thought, and evaluation of space and memory that her later works reference. Similarly, Bolzoni's *The Memory Room: Literary and Iconographic Models in the Age of Printing* (1995) until *Symbolic Images and Metamorphoses of Ideas* (2017) give a similar timeframe of publication and conversation of ideas that create and define the forum of conversation between these two scholars. The 1995 work *La stanza della memoria*, or *The Gallery of Memory*, is in most conversation with Carruthers' work, having been written between her works and translated into English after their initial publications. Evaluation of these three works will show the inconsistency of mnemotechnics' interpretation and use in scholarship.

It is imperative to note that what mnemotechnics is and what it means to accomplish are not unknown. There is no misconception of what rhetoricians have utilized mnemotechnics for, and both Mary Carruthers and Lina Bolzoni sit at the forefront of their crafts. What this chapter outlines is the inconsistency between word choice and intention, and how the word "mnemotechnics" is utilized even when mnemotechnics is not intended. This inconsistency,

especially by some of the most influential writers in the discipline, reiterates the inconsistency of whether a historian or rhetorician means mnemotechnics or spatial mnemonics. Below is a showcase of this inconsistency between the three most influential works by these two experts on the subject.

### *The Book of Memory* by Mary Carruthers

As a cornerstone work of the school of memory alongside Frances Yates' *The Art of Memory*, Carruthers' study of the training and use of memory in the Middle Ages has been used as a foundational work for anthropology, religious studies, neuropsychology, and rhetoric equally. Carruthers' evaluation of the way that trained memory — often called artificial memory — was approached and skillfully honed as an educational, inventional system and a form of meditation have guided scholars on the approach to the intersection of memory to disciplines for decades after its publication. Mary Carruthers' writings on spatial mnemonics and mnemotechnics in *The Book of Memory* are mainly contained in her fourth chapter, "The Arts of Memory." While there are additional references throughout the work, the understanding of spatial mnemonics and mnemotechnics is found most prominently within two sections of this chapter.

It is important to note that *The Book of Memory* does not utilize the word mnemotechnics (outside of its external references) but does utilize the word "mnemotechnique" several times. Despite their similar spellings and nearly homophonic oration, mnemotechniques and mnemotechnics appear to be treated as distinct from one another. Carruthers never gives a distinct definition for "mnemotechnique" in its twenty-one usages throughout the book. Still, from the implications and context of each usage, Carruthers uses "mnemotechnique" to imply a

shorthand for "application of mnemonics or mnemotechnics," and the word functions more as an umbrella term for both mnemonics and mnemotechnics. This is most clearly understood by the two usages in her introduction on pages 9 and 16 and by examining the similarities and differences between the two usages to find her practical definition.

The first of these usages comes on page 9 when Carruthers discusses her ideas of medieval culture's reliance on memory as similar to contemporary culture's reliance on documentation. She writes that "medieval culture was fundamentally memorial. . . involving technologies — [including] mnemotechnique — but… not confined to them" (9), as well as when she describes that she intends Chapter 4 to "examine the circumstances in which the ancient mnemotechnique in the *Rhetorica ad Herennium* was revived. . . and examine three scholastic arts of memory that seem to show how an essentially medieval mnemotechnique was married to the principles of the ancient architectural schemes" (16). By including mnemotechnique as a technology of a memorial culture, it can be assumed Carruthers sees mnemotechnique as a long-term recall tool that *can* be utilized as a tool of invention insofar as that mnemotechnics is a tool of invention and utilizes memories in a way that is similar to spatial mnemonics by attributing memories to images, but it is not always mnemotechnics. By separating mnemotechnique from the "architectural schemes," it can be assumed that mnemotechniques do not inherently include spatial language. In contrast, mnemotechnics is always a tool of invention and always utilizes spatial language. With this understanding, mnemotechnique can include mnemotechnics but can also be replaced with "mnemonic practice" without losing Carruthers' intentions. This distinction, though nuanced, is significant; mnemotechnique is not interchangeable with mnemotechnics despite its adjacent usage. Without a clear definition from Carruthers within *The Book of Memory*, it can be assumed her definition

of mnemotechnique is "mnemonic techniques that can include inventional practices such as mnemotechnics."

What is not inherently clear is when Carruthers means mnemotechnique to imply mnemotechnics, and when she uses mnemotechnique as an umbrella term. As Carruthers' writing is intended for an audience of medieval scholars, Carruthers means mnemotechnics when she writes "mnemotechique" in the context of the rhetorician utilizing mnemotechnics, but she means "mnemonic techniques that can include inventional practices such as mnemotechnics" when she is writing about more generalized applications across the medieval period. Because mnemotechniques are not always mnemotechnics, Carruthers does not always mean mnemotechnics when she writes "mnemotechnique," even when there are times that the referenced "mnemotechnique" is mnemotechnics. She is not always clear about this distinction, so the reader must rely on contextual clues and prior knowledge of medieval practices to assume when the necessary invention is implied to mean mnemotechnics. Yet, this distinction can be unclear to scholars less versed in medieval memory practices.

Carruthers' use of mnemotechniques to mean mnemotechnics can be most succinctly evaluated in Chapter 5, "Memory and the Ethics of Reading" where Carruthers writes that "Bono [Giamboni]'s translation [of *Rhetorica ad Hernnium]* was well adapted, [and] as is apparent from his prefatory remarks, addresses the ethical nature of learned discourse, regarding mnemotechnique as an essential means to that greater end" (230). It is the particular context of relating the *Rhetorica ad Herennium* and speaking of a "greater end" that implies a tool of invention: creating an oration by utilizing the relationships of memories within imagined spatial boundaries as the "greater end." Carruthers precedes this by writing of how Bono understood the process described by the *Rhetorica ad Herennium* enough to include an addition to the precepts

praised by his contemporaries, which speaks to his expertise in the intentions of the work and her inherent knowledge that invention is implied. It is unlikely, with the context we're given and the acceptance of the community who understood the writing, that Bono misinterpreted the mnemotechnics outlined in *Rhetorics ad Herennium* as a spatial mnemonic and that the invention of greater meaning from the relationship of memories using spatial language was well known to his contemporaries. With Carruthers also referencing the greater meaning that Bono's preface alludes to, the word mnemotechnique in this usage *does* mean mnemotechnics, and Carruthers' implication shows her understanding of its inventional nature. However, when Carruthers later writes about images used in medieval manuscripts, her observation that "the grotesque creatures… possess the qualities recommended for memory images by the *Ad Herennium*… [which] represent[s] an instance where a particular mnemotechnique did influence [future thought]" (315), implies that the images are simply representational of recall practices. The use of the word "mnemotechnique" without the implied context of Bono's use of invention is not mnemotechnics despite being the same word used to mean mnemotechnics in the context of Bono's usage.

Most of the appearances of the word mnemotechniques are in the fourth chapter, "The Arts of Memory," where implications of how mnemotechniques may mean mnemotechnics occur most often. Carruthers begins "Albertus Magnus, Aristotle, and the *Rhetorica ad Herennium*," the third of the five sections that compose this chapter, by discussing Albertus Magnus, a thirteenth-century professor of theology, and his written medieval texts, specifically his treatise *De Bono,* Question II, article 2. She presents this portion of Albertus' text as being the logical succession or contemporary parallel to the texts discussed in her prior chapters. Albertus' frequent references to and quotations from Pseudo-Cicero's *Rhetorica Ad Herennium*

(often written as "Tullius' memorial art") unveil his adoration and recreation of the work. As Carruthers writes of Albertus' successes and opportunities in his treatise of *Rhetorica Ad Herennium*, she does so under the assumption that the *Rhetorica ad Herennium* is already known to the reader.

Many of the quotations from Albertus that Carruthers discusses, be they direct Latin quotations or English translations, reveal a unified expression of Albertus' interpretation of *Rhetorica ad Herennium* as a form of mnemotechnics. Despite writing in the 1240s, nearly 800 years after Augustine's death, Albertus' writings make clear that his interpretation of Pseudo-Cicero's work aligns heavily with Pseudo-Cicero's and Augustine's mnemotechnic practice and interpretations. Carruthers writes that Albertus "[s]ets his art of memory in the context of moral philosophy… his justification is made on moral grounds as well as practical ones" (172), which is in harmony with the first and second chapters of *Rhetorica ad Herennium*'s requirements of oration, where Pseudo-Cicero writes that "[An orator] must view the nature of [an epideictic, deliberative or judicial] cause from a moral standpoint" (1.1.5). This harmony of moral philosophy, invention, and memory is united with mnemotechnics in the anecdote of the prosecutor and defendant in 3.21 of *Rhetorica ad Herennium,* which then showcases the use of mnemotechnics for judicial oration. This example is chosen over ones of an epideictic or deliberative oration because "[j]udicial [causes of oration] [are] the most difficult [of the causes], [and] of the five tasks of the speaker, Invention is the most important and the most difficult task [of oration]" (2.1.1). Showcasing the most difficult task of the most difficult cause of oration is a way to unify the topics of the first two books. The prosecutor and defendant anecdote in book 3 of *Rhetorica Ad Herennium* recalls the second chapter's need for a moral foundation in oration. Carruthers even rewrites Albertus' recollection of this specific anecdote of the prosecutor and

defendant from Book 3 of *The Book of Memory* (174), demonstrating her understanding of

Albertus' familiarity with the anecdote that showcases mnemotechnics with moral integrity. By

providing the intention of moral philosophy as Albertus' context and rewriting the anecdote

Pseudo-Cicero utilizes as an example of mnemotechnics, Carruthers proves Albertus'

understanding of mnemotechnics and she shows how Pseudo-Cicero utilizes it for invention in

judicial oration.

       The memories themselves have a greater implication for Albertus, too, and Carruthers

notes that Albertus' "justifications of Tullius' memorial art is valuable for the ethical life and

judgement as well as for an orator, since moral judgments are expressed in acts and it is

necessary that their basis be incorporated in the soul in corporeal images" (172). In short, the

images and their relationships have a meaning that can both be interpreted through a moral lens

and be subject to morality. Referring to mnemotechnics, Carruthers addresses any

misinterpretation a reader may have that "Tullius' memorial art" could be misunderstood as

images being direct representations of memory. Specifically, she clarifies that "it is important to

recognize that Albertus is defending not memory training, which he takes for granted, but this

particular system" (173). The system we understand must be mnemotechnics and not any other

interpretation of mnemotechniques.

       However, Albertus' quotations on which Carruthers chooses to focus assume that the

reader has a knowledge of invention as part of Albertus' implications, and she is unclear in

showcasing where an understanding of invention is applied for readers who may not have that

contextual knowledge. There is no place where Carruthers clarifies that *Rhetorica ad Herennium*

is inventional, nor that Albertus correctly utilizes his translation to continue the tradition of

inventive memory outside of contextual clues. When Carruthers quotes Albertus' explanation of

choosing images within a boundary, summarizing Albertus with "If one crowds too much in one location, one will confound one's images" (173), a scholar versed in the inventional nature of mnemotechnics can read this as Albertus' intuition of my clarified definition of mnemotechnics' second point: "*the imagined spatial relationship an object representing the memory of an object, person, or event to another object representing the memory of another object, person, or event references a larger relationship between the two memories.*" It can also be recognized that an understanding of the spatial relationship within a boundary is imperative to the inventional nature of mnemotechnics, and both understandings together give a strong implication that Albertus is referring to mnemotechnics. When Albertus is writing about the prevention of "crowding," he is writing with the knowledge that the spatial relationships between images representing memories have a more defined interpretation and more meaning to the inventional system and that the relationship can be obscured by having the "distance" between two images in an imaged space be "too close" to have an understandable relationship necessary for mnemotechnics. In contrast, in a spatial mnemonic, "crowding" has little meaning or ramifications to an overall interpretation of or a structure for memory. Carruthers unwittingly obscures this understanding by correcting, "This effect is not what the *Ad Herennium* gives as a reason to avoid crowds; the concern there was with the initial making of backgrounds, and to avoid imprinting crowded places because of their adverse effect on the clarity of the backgrounds" (173). While Carruthers' clarification is true, it focuses the reader's attention away from the inventional application that the relationship of the images has, and towards the detailed differences between Pseudo-Cicero's writing and Albertus' re-writing that focus on how images relate to backgrounds. Carruthers also writes that "Albertus is much interested in the ancient system's use of vivid visual images against precisely visualized backgrounds set in order" (173),

and she recognizes that Albertus is writing "general guidelines" from the *Rhetorica ad*

*Herennium*, giving a soft nod to its mnemotechnical nature and Albertus' use of it. However,

Carruthers then clarifies that "Albertus' examples are clearly medieval, [as opposed to] Tullius'

specific Roman architectural items" (173-174),making it seem as though Albertus' examples

may be distinct and *not* include the necessary element of a spatial relationship that

mnemotechnics requires. Carruthers then notes that "Albertus defends [his] method with vigor

precisely because it is metaphorical" (176), as though it is different from Tullius' method, and

that while Albertus and his contemporaries are "distinctly medieval" (179) and unique from

*Rhetorica ad Herennium*, "Albertus clearly makes a connection . . . and relationship [between

four connections of imagery in his requirements for spatial memory] through the requirements of

*inventive memory*" (176). This positioning of Albertus' writings against Tullius' method makes it

seem as though Albertus may be performing a different task than the inventive memory of

Tullius. Inventive memory, a shorthand for mnemotechnics, is not mentioned again in the rest of

the book, despite ample opportunity to utilize it when explaining the intentions of ancient

rhetoricians. Carruthers' knowledge of where the medieval period's utilization of memory as a

tool of invention exists is often assumed, and she does not clarify for the reader where the

instances of inventive memory are during moments of confusion. Examples that both reference

and draw a reader's attention away from the inventional implications can be difficult to decipher

without prior knowledge.

   We get similar examples of Carruthers' assumptions about the inventional nature of

memory in the subsequent chapter, "Teaching an Art of Memory in Universities." Focusing

primarily on Thierry of Chartres' comments on *Rhetorica ad Herennium* over a century before

those of Albertus Magnus, Carruthers notes this commentary is interesting because of Theirry's

direct grasp of *Rhetorica ad Herennium*'s subjects. Carruthers praises Theirry in the following excerpt:

> [Thierry] gives a sympathetic and comprehensive explanation of [images] and their value to orators, of the reasons why memory craft can benefit natural talent, and of the need for practice and disciplined exercise in making sets of numbered locations. He is clear about what the locations are and how the images are fitted into them, why the locations remain stable while one changes the images to suit the needs of each particular rational cause. He understands the reason for having a fixed order among the locations, so that one can go backwards as well as forwards, or in whatever way one wishes. He knows that *intervalla* refer to *locorum distancias*, the distance in the mind's eye from which one views the locations, for one's view of the content will be confounded if one's view-point is situated too close or too far away. He understands that grotesque, unusual, wonderful images excite the memory, and need to be used instead of ordinary or routine ones. And he approves the advice in Tullius against relying entirely on ready-made images instead of finding one's own. (188-189)

The implications of spatial language, relationships between images representing memories, and boundaries set by the rhetorician would clearly indicate that Theirry is giving an example of mnemotechnics. However, this description almost immediately follows Carruthers' explanation of *memoria*, "as a store-house, custodian of invention and cogitation" (180). This would imply that Thierry's example relates to *memoria,* and, if memoria is the custodian of invention, that mnemotechnics is also connected to invention through memoria. While Carruthers understands the medieval period's application of memory to invention, the context of this synopsis to her description of *memoria* links Theirry's use of mnemotechnics through *memoria,* which is not as

23

intuitively grasped outside of this quote. On the same page, she describes Alcuin, a teacher of

Charlemagne, replying to the king's inquiry on whether *moria* is an art by sharing Alcuin's

interpretation of memory as "a consciously constructed inventory, a library, a store-house of

material in the form of both 'words' and 'things'" (180), but she does not clarify whether this

interpretation of Alcuin utilizes invention.

The title of this chapter is "Art of Memory," and one of the core examples of her use of

art and memoria in a passage is unclear about whether invention is included. Readers less versed

in the inventional implications of memory during the medieval period may become unsure of

where invention is included and where it is not. Carruthers' introduces Cicero's "architectural

mnemonic art so well-known that it needs no elaborate description" (180) before describing how,

150 years later, Quintilian's interpretations of memory and memory training became more

practiced and disciplined than the Greek art of memory. However, a reader would also need to

understand that "Quintilian's judgments against using prefabricated mnemonic images and all

other quick prescriptions for memory training," (180) and "bias towards philosophical rhetoric

and against the sophistical excesses he saw in his contemporaries" (180) can be harmonious with

a focus on the foundational aspects of memory despite its refinement over Cicero's mnemonic

art. Notwithstanding its refinement, Quintilian still stresses "the elementary aspects of memory

training" to build the tools for practical application of memory and "reserves the various arts for

those of advanced ability," despite the juxtaposition Carruthers sets up with her positioning of

Quintilian against Cicero, and "despite the fact that Cicero spoke favorably of using memory arts

based on images in places" (181).

Quintilian's application of mnemotechnics as a system of invention is sufficiently self-

evident to understand that a disagreement in how memory is utilized is not equivalent to

"Quintilian…playing down the utility of [Cicero's art] and of other such *artes*" (180). By clarifying where mnemotechnique changes, who is specifically utilizing invention, and who is utilizing mnemonic practices that could include mnemotechnics, *The Book of Memory* could have provided clarity for all future scholarship that referenced it. Instead, the use of mnemotechniques to mean "mnemonic practices that could include inventional practices such as mnemotechnics" loses clarity in the effort to capture practices of invention and memory.

### *The Gallery of Memory* by Lina Bolzoni

Five years after the publication of Carruthers' *The Book of Memory*, Lina Bolzoni's *The Gallery of Memory* was published. Originally written in Italian in 1995, both its Italian and English translations were considered important additions to rhetorical scholarship. *The Gallery of Memory*'s evaluation of antique and medieval traditions of rhetorical memory dissects memory culture's resurgence and peak in popularity after the invention of the printing press, when ancient ideas were made more accessible and new ideas more easily spread. This reevaluation of ideas whose importance was paramount to ancient rhetoricians and practitioners of memory techniques, which inevitably faded and were then rediscovered before being forgotten again, places *The Gallery of Memory* in a unique position of looking at the implications and resurgence of the ideas that Carruthers began discussing in *The Book of Memory*. *The Gallery of Memory* even references *The Book of Memory* twice, placing Bolzoni's work in conversation with Carruthers' work.

Similar to the *Book of Memory*, the words mnemotechnic or mnemotechnics are not used within *The Gallery of Memory*. Interestingly, uses of mnemotechnique and mnemotechnical do occur within *The Gallery of Memory*; both are words also found in *The Book of Memory*.

However, in Bolzoni's work there are sixty-nine instances of the "art of memory" or its plural "arts of memory," each of which is used as a catch-all phrase for spatial mnemonics, mnemotechnics, and mnemotechniques among others. Bolzoni's "arts of memory" do not use spatial mnemonics or architectural mnemonics for their inventional foundation. These "arts of memory" span a variety of different applications and objectives. For example, Bolzoni writes, "Ciphers, therefore, are tools of an art of memory that is also… a method for knowing and representing the hidden structure of reality" (104) and **"[A]rts of memory readily recycle these diverse experiences and, in turn, incorporate and s them in order to animate the images of internal theatre… in ways that make the language of the body the expression of the language of the soul"** (xxii). This variety in the ways "arts of memory" can be applicable expands beyond the scope of mnemotechnics. Like Carruthers, Bolzoni offers no definition that requires "art of memory" to utilize spatial language for its inventional nature. Bolzoni introduces the phrase as "the [cultural] code founded on a science of images, formed through extensive reading, which travels across and unites different forms of expression [and] relies upon memory. Indeed, [this is] the art of memory" (xiv), and she allows "art of memory" to be applicable not only when mnemotechnics is applicable but also when a lack of spatial language would mean mnemotechnics is not being utilized. With the thirteen instances of the word "architectural" yielding no direct correlation to inventional techniques, and no usages of the word "spatial" within the text, "arts of memory" is the closest synonym that can be assumed to be related to mnemotechnics. This relation, however, is not always the case, and the reader must rely on context clues to understand when "arts of memory" means mnemotechnics, and when it does not.

In one section that utilizes "arts of memory," called "Body and Soul: The Nature of Images," Bolzoni speaks more directly about how "as [images] begin to inhabit the spaces of the

mind — beyond those of writing — the images of memory take on a life of their own" (130).

This "life of their own," Bolzoni argues, lives in a unique interpretation of *mind* that was imagined in the sixteenth century. Specifically, she writes that "the art of memory thrives in a borderland somewhere between physical and intellectual perception: intended to create bridges, modes of communication, and translatability between body and psyche" (130). The mind, as Bolzoni explains, is closer to "interpretation" than "recall," and "memory techniques seek to move between the brain and the mind" (131). Bolzoni's conviction that the arts of memory act as tools of invention is steadfast, but she believes that memory techniques are not equivalent to imagination. Instead, arts of memory are "used to shed light on imagination, on its ambiguous state of dependency and autonomy with regard to the perceptible world. Thus, imagination and the art of memory live side by side; the latter tried to control and amplify that action of the former by shaping it for its use and consumption" (132). Therefore, the arts of memory are tools of invention alongside imagination, but this use of "arts of memory" does not seem to be mnemotechnics. However, despite Bolzoni's not describing any examples that use imagined spaces, such as the buildings that Pseudo-Cicero and Quintilian reference, she is still using spatial language in "spaces of the mind," "borderland between physical perception," and "inhabit." Although this spatial language does not present itself in ways that may have been immediately recognizable to those versed in ancient rhetorics, its implication is still within an imagined space, and this imagined space is the last requirement for this "arts of memory" to mean "mnemotechnics," even when Bolzoni does not specifically utilize the word "mnemotechnics."

More clearly, when Bolzoni references solely Aristotle in this section, it is impossible not to remember Quintilian's reminder that visualized spaces are utilized because of their ease of

translation from the body to the mind. Quintilian believes in utilizing visual spaces that one sees in their mind because "the sense of seeing is quicker than that of hearing" (*De Oratore* 11.2.32) and because the "attention of the mind is of great influence [to] the sight of the eye with regard to objects" (*De Oratore* 11.2.10). The specificity in detail that sight, or imagined sight, brings to recall and association is the most accurate and effective way, in Quintilian's belief, to utilize the body as part of memory. Even when expressed less specifically, Pseduo-Cicero's and Augustine's use of visuals over any other sense showcases the practicality of visual images being the component of the body linked to memory. So, as Bolzoni writes about memory techniques that bridge information between the mind and body, she is utilizing language that traditionally is utilized to describe things one would "see."  Using this language, as Quintilian did, describes ease in ordering and contextualizing information as images upon backgrounds, exactly as the ancient rhetoricians did. The "bridges, modes of communication, and translatability" (130) that Bolzoni references utilize a different, but important, interpretation of Quintilian's work. A new use of spatial language that, because of her knowledge of Quintilian, respects the mnemotechnic practice he utilized but uses spatial language in a way different from what a reader might be used to.

Bolzoni references other rhetoricians who utilized mnemotechnics throughout *The Gallery of Memory* as well: Augustine is referenced four times, the *Rhetorica ad Herennium* is referenced fourteen times, and Quintilian is referred to fifteen times throughout the book, including two references to book eleven, chapter two, the section most explicit about mnemotechnics in Quintilian's *De Oratore* in "Body and Soul: The Nature of Images." Even without the word mnemotechnics, Bolzoni is clear about her implication of "arts of memory"

utilizing invention, and her knowledge of these rhetoricians' utilizing mnemotechnics allows her to be familiar enough to include mnemotechnics within "arts of memory."

Bolzoni continues this interpretation of "arts of memory" in the section "The Places of Memory and Topical Places." She introduces the topic by writing:

> The role played by the art of memory in mediating between words and images, in creating bridges and modes of translation from one to the other, not only affects the construction of an iconological repertory but also pervades all the components of the art: the use of places, their ordered disposition, the fact that images are deposited in them…
>
> The places used by the art of memory also come into play and contribute to the growth of that network [that is created by a series of images]. (188)

She then continues to explain how this relationship evolves with the evolution of the printing press, where "the text is perceived as a set of places… positioned in space" (191) and how the "art of memory" of oratorical traditions evolved with this new technology from treatises teaching "how to position [images] in houses, palaces, convents, and churches" (191) to positioning them in a place on the page. This is in addition to the rise in textual navigational tools, such as indexing, to navigate the space of the page. The tethering of the more familiar interpretation of mnemotechnics as objects in architectural spaces to the less familiar interpretation of text in a two-dimensional space is unclear at first, but Bolzoni's explanations consistently ensure that the reader knows that both interpretations are understood to be mnemotechnics.

The use of spatial language in the quotation and its continuation are the lynchpin in the interpretation that Bolzoni's use of "art of memory" in this instance is mnemotechnics. Writing specifically that "the places used by the art of memory" (188) employ "ordered dispositions" and "images" follows the required spatial language needed for mnemotechnics on a background.

Partnered with Bolzoni's note that "multiple factors come together in the construction of [the] dense mass of meanings and notions that coagulate around the word [place]," this phrasing presents the "relationship between the memories" that mnemotechnics also needs. This can be understood "as a method for producing argumentation," which seems like the intention of many of the orators who utilized mnemotechnics as a form of invention as well. Although this section speaks heavily of the evolution of thought and argument after the invention of the printing press and other developments of the time, the idea of placement and space seems to be expanded beyond its traditional interpretation of "an environment one can interact with" to include space on a page, or the concept of space in art as well. Though Bolzoni has yet to use the word "invention" before this point in *The Gallery of Memory,* she finally references Oazrio Toscanella, Ludovico Castelvetro, and Francesco Panigarola to do so. Bolzoni writes that in the texts of these three philologists, "*luogo* is the place in the text, on the printed page, that may correspond to the *luogo* of the repertory, of the apparatus, or it is the topical place, the source of *inventio (Chapter 2)*" (188). This use of *luogo*, "the physical place… and at the same time the place of the diagram, can be positioned according to rules of classification" (188) is associated directly with invention and is the most direct link from mnemotechnics to "arts of memory." However, with this explanation coming nearly two-thirds of the way through the book, Bolzoni creates a similar fate for her readers as that of the readers of *The Book of Memory*, where interpretation relies on understanding to determine whether "arts of memory" in *The Gallery of Memory* or "mnemotechnique," in *The Book of Memory* means mnemotechnics or not.

To conclude this examination, let us evaluate a particular section from pages 90-102. In this section, "art of memory" appears five distinct times, though its most foundational

interpretation comes in the middle of the section. Here, Bolzoni gives an easy example of how one can create a connection between a symbol and what it symbolizes when writing:

> The sonnet/rebus is used as an exercise for beginners: its ingredients are produced by the manipulation of its literal meaning and thus facilitate its own memorizations; it accustoms the reader to the mental gymnastics needed to break any connection between signifier and signified imposed by the context. The word is isolated in space and broken down in such a way that its iconic capabilities can be developed. This is precisely an introduction to the art of memory. (98)

What is interesting about this interpretation, long before Bolzoni goes on to argue about other types of words with multiple meanings, is how well it fits the second and third points of my definition of mnemotechnics. The rhyming words of a sonnet or rebus are chosen not only for their meaning but also for their cadence and their rhyming structure. Each word, having a unique meaning, has a more dynamic relationship outside of its immediate context to the rest of the structure. This structure is based on each word's placement to the words it rhymes with, the meter of its line, and the phrase or sentence it is a part of. This common attribute of poetry gives it such evocative expression—a text painting if you will—and is a poetic explanation of how the relationship of memories to other memories also have a relationship to one another based on their placement. It is the requirement of a boundary that creates this relationship, similar to the third point of mnemotechnics. For the sonnet, this boundary is the required fourteen lines, rhyming scheme, and restriction of ten syllables per line. To fit within these boundaries, sonnets will often use words that have alternate meanings to fit within a confined rhyming or rhythmic structure. In these confines, words may take interpretive meanings or representations to fit the boundaries while still creating the unified whole and so, as Bolzoni references, its literal meaning

is manipulated into contextual meaning. It is the relationship of the words within its structure, be it rhyming or metric schemes, that defines its meaning, and its meaning points towards a larger relationship of the allusions or poetic moment written about within the expression of art. To align this to arts of memory would fit the inventional interpretation of mnemotechnics perfectly, with the only exception — though a significant one — being the lack of the use of spatial language and the boundaries defining the interpretations not being spatial boundaries.

This section is most interesting because of its relationship to the final work that I will discuss in this chapter: Mary Carruthers' *The Craft of Thought*, which directly references this section from Bolzoni's work in a footnote. Carruthers' reference, unlike Bolzoni's section, does specifically use the word mnemotechnic, and in referencing this section so specifically, she intentionally aligns mnemotechnic, which has a connotation of spatial arrangement, to Bolzoni's "art of memory," which captures the requirements of mnemotechnics that are not spatially related. This relationship between the specific "art of memory" known as "mnemotechnics" is expanded in her next book, titled *The Craft of Thought.*

### *The Craft of Thought* by Mary Carruthers

Eight years after *The Book of Memory* appeared, Mary Carruthers published *The Craft of Thought: Meditation, Rhetoric, and the Making of Images, 400-1200*, as a "companion study to [the] *Book of Memory"* (5) with a "different, if related, subject" (5). She begins her first chapter by noting, "*The Book of Memory* centered on *memoria*; [*The Craft of Thought]* centers on *inventio*" (7). This change to a focus on invention specifically seems to place this work in conversation with Bolzoni's *The Gallery of Memory,* whose focus is on the inventional nature of "arts of memory." As mnemotechnics are a tool of invention, *The Craft of Thought* focuses more

heavily on mnemotechnics than on mnemotechniques, the term primarily used in *The Book of Memory*.

Unlike *The Book of Memory* or *The Gallery of Memory*, there are twenty-seven uses of the word mnemotechnic or mnemotechnics, and there are also fifty-four instances of the word "mnemotechnical*,"* distinct from the twenty-seven uses of mnemotechnics referenced above. And, understandably, there are no instances of the word mnemotechnique throughout *The Craft of Thought.* This aligns well with Carruthers' connection of *mnemotechnique* to *memoria,* and *mnemotechnics* to *inventio,* with each use contained to the subject of *The Book of Memory* and *The Craft of Thought*, respectively. It is notable that invention as the primary focus is the core difference between Carruthers' two works, and it is possible that after seeing Bolzoni's emphasis on invention as a part of memory, Carruthers wanted to further explore invention herself.

First, within 100 pages of footnotes, mnemotechnic appears eight times on its own, with the most distinct footnote being number 23, referencing a passage on page 178. Referring to "mnemotechnic association between cueing image and recollected matter" (178), the footnote reads: "It is this characteristic that distinguishes mnemotechnics from semiology. The association of image and cued memory may (and usually does) *acquire* meanings, and these meanings may (and often do) become conventional in a culture: but there is no inherent 'content' to a memory image" (331). Carruthers wants to make clear that universal symbols, particularly in visual images such as those in the murals, mandala-pictures, or expressions of Homeric episodes that she directly illustrates on page 178 may have been similarly interpreted in cultures that utilized those forms of art but did not have identical interpretations within the same culture. The symbols utilized for recall are personal, and that is their distinguishing feature over a study of symbol interpretation. With Quintilian stressing that backgrounds and images "real or imaginary…

which we must, of course, invent for ourselves" (*De Oratore* 11.21) are important for a personal connection to one's memories, it has long been clear in mnemotechnics that one must utilize their own images and backgrounds for the optimal application of mnemotechnics. Carruthers' observation in distinguishing the inventional interpretations of semiology from mnemotechnics in this note is astute. But what makes this footnote important in particular is her final reference to "the astute comments of Bolzoni, *La stanza della memorial,* pp.90-102*"* (331), with *La stanza della memorial* as the original Italian name of Bolzoni's *The Gallery of Memory*. With *The Craft of Thought* being published after *The Gallery of Memory*, this footnote puts it in direct conversation with *The Gallery of Memory* and supports the idea that Carruthers' use of the term "mnemotechnics" in *The Craft of Thought* is a deliberate choice that comes after reading Bolzoni's use of invention in her term "art of memory."

  We can see this choice of the term mnemotechnics as a specific focus on invention, as opposed to mnemotechnique's more broad applicability, cemented as early as the first chapter of *The Craft of Thought.* Carruthers begins by explaining that Frances Yates' *The Art of Memory*, "reinforce[s] some common misconceptions about the possible cognitive uses of the art of memory… believing the goal was solely to repeat previously stored material… She could not have been more wrong" (9). Continuing, Carruthers explains:

> The goal of rhetorical mnemotechnical craft was not to give students a prodigious
> memory for all the information they might be asked to repeat in an examination, but to
> give an orator the means and wherewithal to invent his material, both beforehand and —
> crucially — on the spot. *Memoria* is most usefully thought of as a compositional art. The
> arts of memory are among the arts of thinking, especially involved with fostering the
> qualities we now revere as 'imagination' and 'creativity'. (9)

The clarification Carruthers is making—distinguishing "mnemotechnical craft" from rote memorization into an art of thinking and imagination—aligns with the inventional nature of mnemotechnics and utilizes its correct terminology consistently. Carruthers continues for five pages, clarifying appliers of this inventional tool, such as "Church Fathers with excellent rhetorical education — Augustine, Jerome, Basil, Cassian, Cassiodorus, and Gregory" (11), Aristotle, and Albertus—all names that would be familiar to those who have read *The Book of Memory*. This newfound clarity is enlightening for understanding a separation between mnemotechniques and mnemotechnics from the same author that utilized both terms, including tangible examples.

What is confusing, though, is that a reader who has only read *The Book of Memory* has no clear distinction as to whether mnemotechnics is aligned with Carruthers' usage of mnemotechnique from the *Book of Memory* or "arts of memory" from *The Gallery of Memory.* Without a direct clarification of how mnemotechniques become mnemotechnics or a definition of mnemotechnics, the word "mnemotechnics" can be seen or read as something of a corrected spelling instead of a different technique. Out of context, it is also easy to confuse Carruthers' intention since many quotations' contextual clues do not give a sufficient indication as to whether Carruthers intends mnemotechniques or mnemotechnics.

For example, Carruthers writes that "[Albertus'] precepts of the *Rhetorica ad Herennium* developed a *disciplina* of inventive meditation based on memorized locational-inventory structures. These locational-inventory structures were called "memoria spiritalis" or "sancta memoria" (12) by the monks that utilized them. The monks' thoughts, according to Carruthers, were that "some type of locational structure is a prerequisite for any inventional thinking at all" (12) and that "mental places are associatively related to some content… [through] what we

would call an allegorical connection" (14). While Carruthers had spoken about mnemotechnics earlier, she also speaks about locational-inventory structures including many of the same aspects of mnemotechnics, and this discussion needs additional focus on the inventional nature of mnemotechnics as the distinguishing difference between the two applications. Carruthers even writes that "[backgrounds and images] are not peculiar to any one mnemonic technique but are shared by many because they build upon human learning and thinking" (14), which further obscures interpretation when the reader is unfamiliar with the context. Later, in a section called "The Engine of Memory," she describes how memory can be used in ways outside of exclusive recollection, which should support a more inventional relationship (62). She begins this section with a description of how Hugo of Rouen sent messages to his brother Philip in a "pinched, contracted style" (62), with Philip "invited to expand them" (62). This description serves as an example of memory that allows Philip to utilize invention to expand the intention of the contents of the letter based on its association with Hugo and Philip's relationship. Carruthers writes, "This view of the work of memory both as producing a concentrated, 'brief' matter for storage, and in recollection as exfoliating it through the 'routes' of its associations, is fundamental to the earliest monastic art of memory, as it was also in ancient mnemotechnic" (62). While she does mean mnemotechnics, a reader who is only familiar with *The Book of Memory* may well interpret "mnemotechnics" as an "application of spatial mnemonics," as there is no implication of invention, and the use of "'brief' matter for storage" aligns well with Carruthers' previous usage of mnemotechnique. It is only through additional context that a reader can understand the implied practice of mnemotechnics, but those looking only at Albertus' practice who may be more familiar with *The Book of Memory* may read "mnemotechnic" as an updated spelling for "mnemotechnique."

Finally, when speaking of Prudentius' retelling of Lot and Abraham, Carruthers quotes Prudentius' claim that his work is "haec linea." She explains:

> [*L*]*inea*, the richly textured lineaments of an educated and well-stocked memory. *Linea* is used as a synonym of *ratio*, the mental schemes and schedules that Augustine found, along with images and notations of emotions, among the things in his memory. The word resonates richly in medieval mnemotechnic.
>
> But notice here how Prudentius uses the word — which later comes to mean 'a diagram,' and is associated with the mental 'sketch' of a composition — to indicate what we now would probably call the *story*. Prudentius' *linea* is made up of Biblical events recalled *summatim,* like those which Augustine recommended as the basis for teaching. (145)

Prudentius' use of a structure of a scheme of images and notations to recall the story of Lot and Abraham is a mnemonic device, but Carruthers then attributes this scheme to being more akin to the inventive nature of storytelling, framing a practice that at first glance could be mnemonic recall. Carruthers continues by explaining how the readers of poems are advised to "see" the pictures the poem paints, and how the structure of the poem guides the structure of the relationship between images.

Akin to the previous example, it is only Carruthers' context that lets us know Prudentius' practice is a mnemotechnic, and not a mnemonic practice. Prudentius' explanation of *lineae* as "richly textured lineaments of a well-stocked memory" (145) along with the practice of the time for "figures and signs to mark important matters for secure memory retrieval" (122) gives the perception that Prudentius' intention was simply to recall Lot and Abraham when needed and that his use of schemes was for "orienting his/her cogitative procedures" (122) for recall

purposes. Only through Carruthers' context, however, is a reader given the understanding of "haec linea as a model [for] the morally examined life [as] the work of a careful artist… in words" (145), similar to Albertus' example above. Without understanding that "medieval and ancient writers do not distinguish between "verbal" and "visual" memory" (122) and that "the complete parchment with its lettering and decorations… [was an] organization of images that [were] designed to strike the eye of the mind forcefully" (122), it is difficult for a reader to understand the spatial language or relationship of the images representing the story of Lot and Abraham within the boundaries of the parchment and to recognize Prudentius' practice as mnemotechnics. For those reading Prudentuis' notes and looking for a word to describe what practice he is utilizing, Carruthers' use of mnemotechnics could unintentionally provide a convenient, albeit incorrect, shorthand for "mnemonic technique."

**Influence of _The Book of Memory, The Gallery of Memory, and The Craft of Thought_**

The evolution of the terms "mnemotechniques," "the art of memory," and "mnemotechnics" in the works of these prominent scholars on the relationship between space and memory shows growth in the interpretation of mnemotechnics. Unfortunately, many of the ideas within the three works evaluated have been referenced or alluded to incorrectly in scholarship following these three works, utilizing the terms "mnemotechnics," "mnemotechniques," and "art of memory" interchangeably when they are not. Using Google Scholar's "cited by" feature, we can closely approximate the influence of these works. According to the "cited by feature" on February 29th of 2024, Mary Carruthers' _The Book of Memory_ has been cited 5483 times, Lina Bolzoni's _The Gallery of Memory_ has been cited 270 times, and _The Craft of Thought_ has been cited 1773 times. Recognizing some overlap in

citations between these works and understanding that not all of these citations are from the sections directly discussing mnemotechnics, we can still conclude that *The Book of Memory* is the earliest work in the conversation having not yet been influenced by the later works but is referenced the most. Mnemotechnics then, as the most contemporary word used for the inventional relationship of space and memory, has been utilized by those whose citations are from *The Book of Memory.* The mnemotechniques referenced within *The Book of Memory*, while they could contain mnemotechnics, do not always mean mnemotechnics despite their similar spelling, and scholarship that does not also consult *The Gallery of Memory* and *The Craft of Thought* for the full conversation may inadvertently utilize mnemotechnics incorrectly. Without a core definition to fall back on prior to this work, there is no precedent for how to cross-reference whether this assumption of mnemotechnics as interchangeable with mnemotechniques is correct. While this is not always the case, various examples of mnemotechnics being misinterpreted can be sourced, even when *The Book of Memory* is cited. These misinterpretations of the term mnemotechnics can be seen through various disciplines, and the ripples of this misinterpretation have lasting impact on these disciplines as these misinterpretations proliferate.

**Chapter 3: On the Impact of Mnemotechnics as a Misinterpreted Term**

Before I turn to the impact that Mary Carruthers and Lina Bolzoni had on the study of mnemotechnics and the distinction between mnemotechnics and spatial mnemonics, it is important to note some of the literature predating their works. Evaluating scholarship utilizing mnemotechnics before *The Book of Memory, The Gallery of Memory*, and *The Craft of Thought* were written will provide the basis for understanding the colloquial interpretation of mnemotechnics. While many scholars as well as others cite mnemotechnics from Frances Yates' *The Art of Memory,* the word mnemotechnics is used with varying degrees of accuracy due to Yates' avoidance of a clear definition. After Carruthers' and Bolzoni's works describing mnemotechnics, the definition of mnemotechnics has been clarified in some fields of study but has remained misinterpreted in others. Understanding how the misinterpretation of mnemotechnics existed before Bolzoni's and Carruthers' work will allow us to understand where mnemotechnics is still being misinterpreted to this day, and whether these misinterpretations cite Yates exclusively, Bolzoni and Carruthers, or none of their works referenced above. Then, evaluating scholarship that applies the concepts of mnemotechnics without referencing mnemotechnics will highlight where a lack of a clear definition for mnemotechnics is affecting scholarship in a variety of disciplines. Finally, the potential benefits of a clarified definition of mnemotechnics to scholarship misinterpreting mnemotechnics will be provided.

**The Use of Mnemotechnics Before Carruthers and Bolzoni**

This section will discuss two texts written before the publication of *The Book of Memory, The Gallery of Memory,* and *The Craft of Thought*. The first text, "*Review of the Literature on Memory Enhancement: The Potential and Relevance of Mnemotechnics for Military Training*"

by Douglas Griffith, focuses on a practical approach to what he refers to as "mnemotechnics." Despite having the same name, Griffith's interpretation of what mnemotechnics is does not align with the practice of mnemotechnics and instead outlines various mnemonic tools for remembering specific kinds of information. The second work discussed, "A Graphic Exercise of Mnemotechnic" by R.J. Schork, claims that the character of Bloom in James Joyce's *Ulysses* is utilizing a mnemotechnic to recall Hebrew characters. Similarly to Griffith's misinterpretation, Schork is also misusing the word "mnemotechnic" to mean mnemonic and has no reference to the rhetorical practice of mnemotechnics.

Outside of studies of rhetoric, *A Review of the Literature on Memory Enhancement: The Potential and Relevance of Mnemotechnics for Military Training* brings light to a field not commonly associated with memory and inventive rhetorical study. Written for an audience not versed in rhetorical practice, this review of military memory practices is an excellent showcase of a commonly incorrect interpretation of mnemotechnics as a form of memory enhancement and spatial mnemonics. Griffith's *A Review of the Literature on Memory Enhancement* was published in 1979 after Yates' *The Art of Memory,* which is one of more than fifty references the work employs. The definition of mnemotechnics, unlike in Yates' work, is very clearly written in the foreword by technical director Joseph Zeidner and later restated by Griffith using Zeidner's words. Zeidner identifies mnemotechnics as "techniques for memory enhancement" (v), and he uses "Learning Time with a Mnemonic System" — an article by Edward Berla, J.J. Persensky, and R.J. Senter analyzing participant's abilities to memorize a list of twenty words — to set up an experiment intended to show "how mnemonics and mnemotechnics can be incorporated into military training" (v). It could be possible that *A Review of the Literature on Memory Enhancement* finds the term "mnemotechnics" from Yates' book, which is referenced several

times in both *A Review of the Literature on Memory Enhancement* and "Learning Time with a Mnemonic System," although "Learning Time with a Mnemonic System" does not use the word mnemotechnics. Griffith is explicit that mnemonics and mnemotechnics are distinct ideas and separates the concepts before turning to his evaluation. Griffith expands upon this distinction between mnemonics and mnemotechnics by writing:

> Although the terms mnemonics and mnemotechnics are often used interchangeably, in this paper they will have definite and distinct meanings. The distinction employed in this paper is essentially identical to that made by [R.J.] Senter [sic] [in "Learning Time with a Mnemonic System"] (1965). Basically the term "mnemonic" will refer to a specific aid to memory. For example, the name Roy G. Biv is a mnemonic, a first letter mnemonic, for the colors of the spectrum. All acronyms are mnemonics, or at least purport to be mnemonics. . . Any specific mediator, be in verbal, imaginal or whatever, will also be regarded as a mnemonic. In distinction, a mnemotechnic is a system for generating mnemonics which attempt to solve a memory problem. (3)

Memory problems, as presented in the book, are treated as a situation in which a person is trying to remember a specific type of information. Spelling, speeches, Morse code, names and faces, pictorial symbol referents, time and places, or colors among others are presented as the type of information a person would need to remember, with a specific mnemotechnic presented as the solution for a participant to remember that type of information. In Griffith's interpretation, there is no spatial language necessary to either mnemonics or mnemotechnics, nor is there a need for the images associated with memories to be evaluated for a greater relationship to other images of memories in an inventional style. Given this type of "memory problem," it is not surprising that

the mnemonics that are presented as "mnemotechnics" have nothing to do with space, as none of the types of information that could be a memory problem are related to space.

Despite Griffith's insistence on a difference between mnemonics and mnemotechnics, mnemotechnics, as it is being applied in *A Review of the Literature on Memory Enhancement*, is incorrectly interpreted as "the implementation of mnemonic techniques" (cite) and does not correlate to mnemotechnics as it is utilized by ancient rhetoricians. Even when concluding the work, Griffith continues to incorrectly insist that mnemotechnics is as follows:

> distinguished from learning strategies, in that learning strategies were techniques for learning meaningful material… it might be more appropriate to think of mnemotechnics and learning strategies along a continuum. To the extent that information to be learned appears meaningless, mnemotechnics can be employed. As materials become more meaningful learning strategies which exploit the inherent structure of the learned material can be employed. (50)

To Griffith, mnemotechnics is employed when difficult, meaningless information needs to be remembered, while useful information employs learning strategies to be learned. This insistence of mnemotechnics being used exclusively for meaningless recall limits Griffith's view of memory and does not connect learning and memory as something that can be done through the same technique. However, it is not only papers on practical applications of mnemonics that misuse the word "mnemotechnics"; even in scholarly analysis "mnemotechnics" is incorrectly used when another term may have been more appropriate.

Later in 1979, after the publication of *A Review of the Literature on Memory Enhancement*, R.J. Schork published "A Graphic Exercise of Mnemotechnic" in the *James Joyce Quarterly*, beginning the article with a discussion of one of James Joyce's annotations of a

moment that entails recalling Hebrew characters in *Ulysses*. Schork suggests that the character of

Bloom is using "a hallowed pedagogical gimmick, the mnemotechnic" (352). This

characterization contrasts markedly with Joyce's annotation of this moment as a "comment on

the linguistic competence of his two characters" (351).  Instead of following Joyce's praise that

Bloom's recollection of Hebrew characters positively showcases Bloom's linguistic competence,

Schork sees Bloom's alleged use of mnemotechnics as a slight to Bloom, with mnemotechnics

being a gimmick of recollection. While never defining mnemotechnic despite introducing the

term, Schork alludes to his definition in similarly degrading terms by writing "as American

children memorize the name of the Great Lakes by thinking of [the acronym of] "Homes", so too

were Dublin students taught "Roygbiv" as an acronymic catalogue of the colors in the spectrum"

(352). With no references to any utilization of mnemotechnics by rhetoricians or historians with

a definition or explanation of the term, it appears that Schork intended the word to mean

"mnemonic technique." Interestingly, it seems that Schork did not create the term by combining

the words "mnemonic technique" for legibility but instead pulled the word from a passage in

Joyce's work when Grandfather Virag Lipoti is taunting Leopold by asking him to "Exercise

[his] mnemotechnic" (352). It appears then that Schork, reading the word here, assumed its

meaning as the basis for his article. Whether Joyce originally intended the word as it was

originally utilized or whether Schork follows in Joyce's misinterpretation is unknown. Similarly

to Griffith's interpretation, though perhaps coincidentally, there is no spatial language or

evaluation of images in backgrounds for Schork. Unlike Griffith, however, Schork's utilization

of the term mnemotechnics also disregards any background to define a boundary for evaluation.

In all six usages of mnemotechnics in Schork's article, each of them simply means "mnemonic."

From Griffith's assumption of understanding an incorrectly utilized term to Schorck's misinterpretation of mnemotechnics' application, the interpretation of mnemotechnics as it was utilized by ancient rhetoricians occurred with varying degrees of accuracy before the scholarship of Carruthers and Bolzoni.

## Mnemotechnics After Carruthers and Bolzoni

After Carruthers' and Bolzoni's trio of works that operated as an extended conversation, it might be assumed that the interpretation of mnemotechnics had been clarified, and scholarship after *The Book of Memory, The Gallery of Memory,* and *The Craft of Thought* would utilize the word mnemotechnics in a way similarly to the way Carruthers and Bolzoni do. Unfortunately, this is incorrect, even in many works that cite *The Book of Memory*, *The Gallery of Memory*, or *The Craft of Thought*. With Carruthers and Bolzoni relying on contextual interpretations and knowledge from their intended audience instead of penning clear definitions for their terms, most notably missing a clear definition for mnemotechnics, future scholarship utilizing these terms or citing these works has perpetuated the assumptions made before *The Book of Memory*, the earliest of the three works. Several of these works incorrectly utilized citations of Carruthers' and Bolzoni's works to defend the incorrect interpretation of mnemotechnics.

In what follows, I will be evaluating examples of when rhetoricians use the concept of mnemotechnics in their application of rhetorical studies involving place, literature and philosophy, and video games and digital space. Examples of scholarship utilizing mnemotechnics incorrectly and scholarship that may be enhanced by a clarified definition of mnemotechnics will be presented as divergent effects of a lack of clarity in the definition and

application of mnemotechnics. Finally, suggestions of how a clarified definition of mnemotechnics may further scholarship employing this term will be offered.

*Studies of Rhetoric and Place*

This section will discuss Jeff Rice's *Digital Detroit, Rhetoric and Space in the Age of the Network* and its studies of the rhetoric of place. *Digital Detroit* primarily focuses on the connection of rhetorical features in Detroit through a study of four of its most iconic places: Woodward Avenue, the Maccabees Building, Michigan Central Station, and 8 Mile. Rice's use of spatial language and boundaries to describe the relationship of these places to each other alongside an evolving interpretation of the cultural memory and images of these places follows many of the inventive practices of the ancient rhetoricians who utilized mnemotechnics, but the word mnemotechnics does not appear within *Digital Detroit*. However, a clarified definition of mnemotechnics could offer additional insight to Rice's study.

One possible reason that mnemotechnics does not appear in *Digital Detroit* is an incorrect assumption that mnemotechnics is related more closely to architectural mnemonics than to spatial mnemonics. While similar, the difference between architectural mnemonics and spatial mnemonics is distinct. Architectural mnemonics are mnemonic devices whose images and backgrounds are contained in "a system using sequences of memory rooms in each of which memory images are to be placed" (Yates 295) and are based on sequences of constructed rooms, while spatial mnemonics are mnemonics that utilize spatial language but are not confined to constructed spaces. Misconstruing spatial mnemonics as equivalent to architectural mnemonics can restrict mnemotechnics' applicability, as mnemotechnics' use of spatial language and evaluation of the spatial relationship between images representing memories are not limited to

constructed spaces. However, as many rhetoricians used examples relating to constructed spaces, Rice may have strayed from reference to mnemotechnics. By looking beyond the limitations of constructed places, rhetoric about place in *Digital Detroit* can include mnemotechnic practice in less constrained ways and accentuate Rice's studies instead of restricting it.

Most of Rice's book describes the rhetorical effect that guides the response to and from the community that exists in four iconic places within Detroit: Woodward Avenue, the Maccabees Building, Michigan Central Station, and 8 Mile. However, it is Rice's unveiling of a network among these four places that discloses "the vast web of intertextual relationships…inextricably interwoven with the physical objects and spatial relationships that constitute the city" (7), a description he borrows from William Mitchell. While this web showcases itself as "the material world of shops, streets, homes, and other physical locales" (18), it also showcases itself in the "personal relationships, textual readings, political issues, [and] the [World Wide] Web" (44) that are bound within the physical communities. These communities, Rice writes, are the agents of understanding memories whose representational images are physical places in the city. These images, related spatially to one another, create a "series of hubs of community social activity that unite [different communities]" (189). Rice puts communities as agents of rhetorical understanding by pulling from Kevin Lynch's *The Image of the City*: "Nothing is experienced by itself, but always in relation to its surroundings, the sequences of events leading up to it, [and] the memory of past-experiences" (53) as a form of contextualization to understand a person's current placement, both within the community and in terms of the community's location within the city. It is the distance between these artifacts of memory, be it places like parks or stores or methods of travel like bus stops and roads, that give meaning and importance to the communal memory. Rice even quotes Yates in explaining the

importance of distance, not only in communal standings but also in how memories are processed

through representational space and avatars of places within the city. Rice argues for this

communal processing by noting Yates' comments of "visualization occurring not in the display

of images, but in spatialization. This spatialization was a 'transformation which keeps and

intensifies the principle of order but does away with the cultivation of imagination as the chief

instrument of memory" (83). It is this importance of distance and orientation between artifacts of

memory within the boundaries of a city that aligns Rice's intention of describing a network of

communities and understanding within Detroit to the inventive nature of mnemotechnics.

Throughout *Digital Detroit*, Rice continually uses spatial language to describe the

orientation of places to each other and employs the boundaries of these spaces to contain the

communal interpretations he outlines. Rice's understanding of the relationship of the spaces he is

describing to one another resembles the way that different communities interpret the spaces

themselves. These places are intertwined into a network that holds memories and connections,

each of which have a different relationship to other places. This relationship of places as images

of the memories that communities hold echoes the inventive intentions of mnemotechnics. Rice

combines the ideas of Gregory Ulmer and Edward Casey through the recognition that "the logic

of [communal interpretation] is based on imagination, memory, and place" (96) and the

combination of those three allows each community to understand their inventional interpretation

of a city. Through interpreting the placement of these spaces and their representative memories,

the spatial relationship of the spaces Rice writes about creates a greater relationship of

community (both digital and physical) than the images that these spaces represent. It is the

communities dwelling in these spaces that create the boundaries that contextualize these spaces

and link them to one another, similarly to how a rhetorician creates the boundaries that

contextualize images representing memories and link them to one another. It is clear that Rice is describing a communal mnemotechnic within *Digital Detroit*, whose invention is an interpretation of the city, and that each community living alongside the physical spaces invent their interpretation of the city based on their personal and communal memories. *Digital Detroit*, as such, can be read as a description of the communities of Detroit that interact with Woodward Avenue, the Maccabees Building, Michigan Central Station, and 8 Mile. Moreover, this work describes communities that utilize mnemotechnics to invent various versions of Detroit based on the images of the four places described in the book. This communal mnemotechnics is utilized in a multitude of communities, both cultural and religious. While Jeff Rice primarily outlines the cultural interpretation, there are scholars who also outline the religious angle of communal mnemotechnics.

### *Memory and Religious Studies*

This section will discuss two texts that bring together rhetorical memory and subjects from religious studies. The first, "Beyond Mnemotechnics: Confession and Memory in Augustine" by Dave Tell, focuses on Augustine's approach to rhetorical memory and the impact of his religious beliefs on his perception of memory. Tell's analysis of Augustine's approach to mnemotechnic memory includes describing mnemotechnics in a way that separates the inventive nature from the practice of mnemotechnics before abandoning the word when he turns to describing Augustine's *Confessions*. The second work, a book titled *Religion and Cultural Memory: Ten Studies* by Jan Assmann and Rodney Livingstone, uses all the components of mnemotechnic memory, but because the scholars never cite any scholarship on mnemotechnic memory, they never use the term *mnemotechnics*. As a result, this article is not part of the

scholarly conversation around memory, despite being a prime candidate to continue the conversation after Carruthers and Bolzoni. This article shows what happens from an unclear definition of mnemotechnics—it prohibitively restricts other scholars from engaging in the conversation about memory.

The most cohesive place to begin would be in Tell's "Beyond Mnemotechnics: Confession and Memory in Augustine," which utilizes the word "mnemotechnics" within its title and was published in 2006. Tell's interpretation of Augustine in the article, despite being a known applicator of mnemotechnics, is not as initially straightforward in showcasing Augustine's practice of mnemotechnics as the title may indicate. Tell's focus on "[m]emory, figured as a place… accompanied by placement in the storehouses of memory" is more closely interpreted as a spatial mnemonic than as a mnemotechnic. Even his definition of "mnemotechnics as memoria ex locis" (233) ignores the inventional nature of mnemotechnics that plays throughout Augustine's work. It is Tell's definition of mnemotechnics as "memoria ex locis," memory from loci, that showcases this interpretation of Augustine as practicing spatial mnemonics. Loci, a term discussed in the *Rhetorica ad Herennium* and *De Oratore*, is core to the recall aspect of mnemotechnics and is best described in Quintilian's *Institutio Oratoria* as "localities impressed on the mind… [to] return to, [so that] after an absence of some time, we not only recognize them, but recollect also what we did in them. Persons whom we saw there, and sometimes even thoughts that passed within our minds, recur to our memory" (3.17). Loci, as a point of revisiting a representational image to recall a memory, are a part of mnemotechnics, but defining mnemotechnics as equivalent to memories from loci implies that mnemotechnics operates as a mnemonic rather than a tool of invention. Instead, Tell indicates Augustine's use of an inventive spatial relationship as a separate term, the "politics of placement."

Tell's term the "politics of placement — the changing positioning and managing of the remembered objects that accompany its placement" (233) —follows the idea of the spatial relationship between two images representing memories and could be interpreted as inherently a part of mnemotechnics despite Tell's treating the term as unique from mnemotechnics. Tell proceeds to note that while "Augustine is classified by Carruthers with Quintilian and Julius Victor as thinkers who had little engagement with mnemotechnics, and devalued the study of memory" (235), Augustine "makes the case that the art of memory and the art of rhetoric are deeply interdependent" (236), but then he never ties Augustine's practice back to mnemotechnics. Instead, Tell writes that "all cognition for Augustine is mnemonic" (242) and that it is the practice of understanding that "is engaged in the process of thought, and thought is always a memorial act" (243). Yet, Tell does, in a roundabout way, return to the practice of confession as an inventive practice when he offers, "We are now in a position to answer the "central question" of Augustine's *Confessions:* 'How then do I seek you, O Lord?' The answer is confession: a rhetorical and memorial practice through which Augustine remembers God without placing God… Confession displaces memory and refigures it" (249). This inventive conclusion follows the process and conclusion of mnemotechnics but does so without Tell showcasing to the reader that the practice of mnemotechnics for Augustine is the practice of confession with invention already included. Instead, Tell's writing reads as though the practice of mnemotechnics is incomplete before Augustine includes understanding and memory.

Compared to Jan Assmann and Rodney Livingstone's *Religion and Cultural Memory: Ten Studies*, Tell's use and subsequent avoidance of the word mnemotechnic draw the reader away from recognizing where Augustine's language of Understanding and Memory aligns with mnemotechnical practice. Assmann and Livingstone, however, write their 2006 book without

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utilizing the term "mnemotechnics", or any term related to mnemotechnics such as "art of memory" or "mnemotechnique." Instead, they address the inventive nature of memory in the creation of religious of cultural identity and expression. With no references to Carruthers or Bolzoni in their work, there is no indication that Assmann and Livingstone may be writing about mnemotechnics. And with the only reference to Yates being one of her works published before *The Art of Memory*, it is clear that *Religion and Cultural Memory* is not intentionally referring to mnemotechnics. However, as their work aligns with mnemotechnic practice, a lack of a clear definition of mnemotechnics makes the appropriately used term less common and without the widespread currency for the authors to utilize if an apt definition were in use. Instead, Assmann and Livingstone's work is disconnected from any conversation around mnemotechnics despite their work following mnemotechnic practice.

Assmann and Livingstone set up their form of memory in the introduction by distinguishing that memory is "twofold: neural and social" (1). By quoting Maurice Halbwachs' definition of memory as "only [developing] through intercourse with other people" (1), Assmann and Livingstone expand this definition through a cultural lens as the "order and structure that link us to the social world" (2). Memories, they argue, can be categorized into "episodic memory and semantic memory" (2) with semantic memory linking personal meaning and social importance to remembrance, while episodic memory is organized into "scenic memory: incoherent and remote from meaning" and "narrative memory: tending to have meaningful and coherent structure" (2), with a loose relation of the two to "involuntary and voluntary memory," respectively. While at first, this distinction seems distant from intuitive uses of spatial language, Assmann and Livingstone relate the use of spatial language to their background of chronology instead of physical space. Utilizing a chronological background allows Assmann and Livingstone

to use language similar to spatial language without needing to restrict their imagination to physical space. With time as the background where images exist, language such "before," "after," "on top of," or "connected" could be repurposed for a chronological relationship instead of a spatial relationship. These words, among others, still maintain an intuitive understanding of space alongside a chronology that behaves like a structure. A chronological structure gives order to the imagined images representing memories and enables one to relate images to one another in a new interpretation, while still using the necessary spatial language. Assmann and Livingstone showcase this through an academic predisposition to relate eras and times to dated artifacts. By relating artifacts to periods, Assmann and Livingstone argue that both scholars and cultures "follow [created] rules governing the formation of tradition[;] not confronted with a diffuse mishmash, but by a distribution of events that enable [one] to receive a clear temporal order, a 'shape of time'" (82). This adherence to the rules formulating tradition becomes a foundation for evaluating given periods against one another. Creating periods of representational time affords the images necessary for cultural understanding through personal understanding and evaluation of one's interpretation of the relationship of two periods' similarities and differences as representational of a cultural interpretation.

Assmann and Livingstone argue that the background in which the images of cultural memory exist is based on an interpretation of what the analyzed culture is. The culture could be representational through cultural artifacts, via the more esoteric interpretations of cultural memory, or by the boundary of a time frame. Cultures could be expressed tribally, such as the memory culture showcased by the Osage tribe, or like that of premodern-China, where "meaning articulated is bound not to contingent historical events, but to [similar myths] as the epitome of a timeless order and coherence" (13). These varieties of similar origin create cultural histories or

religious communities that resemble one another and that integrate histories of "timeless conversation in which one can communicate with [important historical figures] … in anachronistic places with [their] own time" (80). Each interpretation of what the analyzed culture is creates a boundary on which the artifacts Assmann and Livingston analyze can relate to other artifacts. Understanding the boundaries of an analyzed culture gives different significance to the artifacts. Similar to how changing the boundaries in mnemotechnics might alter the interpretation of the relationships that images representing memories may have to one another, changing the boundaries of culture alters the interpretation of what the artifacts may represent. These boundaries, unlike in mnemotechnics, are social boundaries.

Most important, this expression of cultural memories existing within boundaries and backgrounds and the use of spatial language follow the inventive nature of mnemotechnics. Assmann and Livingstone believe that this expression of cultural memories existing through an inventional lens is shown most coherently through artifacts of writing, which they describe as the "function of a public memory. [Writing] was not concerned with storing data, but with making it visible, creating a symbolic order in which the new, common, project of the [culture] could be displayed… in the sense of an existence that lasted beyond the death of the individual" (85). This connection of cultural memory existing beyond the people who agreed upon the culture at its creation is the consistent invention of an agreed-upon culture, heritage, and community based on the invention of memory. Though this practice of mnemotechnics may not be as immediately recognizable as the mnemotechnics utilized by rhetoricians for oration, Assmann and Livingstone's argument of invention through the analysis of the images of cultural memories in a chronological relationship described using spatial language, could be connected and may have expanded their discussion further with a clarified definition of mnemotechnics. Moreover, as

what follows will illustrate, an analysis of contextual images that change based on the boundaries is also present in digital space, where contextual images are also paired with constructed space.

*Video Games and Digital Space Studies*

This section will discuss two texts that bring together digital space and demonstrate how each piece of scholarship would benefit from incorporating a clarified definition of mnemotechnics in their arguments. The first article, "Watch to Win? E-sport, Broadcast Expertise and Technicality in Dota 2" by Ben Egliston, utilizes the word mnemotechnics as an evolution of Bernard Stiegler's theory of technicity, which Egliston describes as "the condition of human life as composed in an ongoing, relational dynamics with tools, technologies, and other material artifacts" (1175). Egliston does not use the word mnemotechnics as though it is a practice or word that existed before his article, and his definition of mnemotechnics as related to a condition of human life seems divergent from how it was utilized by ancient rhetoricians. With no conversation about rhetoric, there is no alignment to any conversation about mnemotechnics despite Egliston's use of the word. The second article, "Spatial Mnemonics Using Virtual Reality" by Eric Krokos, Catherine Plaisant, and Amitabh Varshney, describes a mnemonic experiment comparing participant's memory using tools in virtual reality, but in its conclusion, the authors write about potential avenues for invention using the simulated spaces. Yet, without a conversation about mnemotechnics to engage with, Krokos, Plaisant, and Varshney miss an opportunity in their conclusion for simulated spaces to be utilized in the same way ancient rhetoricians utilized mnemotechnics.

In studies of video games and digital space, space is imagined by those creating the simulated spaces or those engaging with it. On a conceptual level, this is not dissimilar to the

imagined spaces utilized as a background for mnemotechnics by ancient rhetoricians. While there is similar language in scholarship about simulated architectural space to the academic language about architectural study, digital space being an imaginary space makes this scholarship fundamentally different. However, their similarities offer promising applications to mnemotechnics, which also works with imagined spaces. With mnemotechnics and digital-space scholarship both utilizing spatial language within an imagined space and engaging with memory as a core component to both of digital space and mnemotechnic scholarship, it is easy to imagine the practice of mnemotechnics being present in studies about video games and digital space. While Ben Egliston's article "Watch to Win? E-sport, Broadcast Expertise and Technicality in Dota 2" involves digital space and uses the word mnemotechnics, Egliston's definition of mnemotechnics is not related to the practice of ancient rhetoricians whatsoever.

Egliston's article focuses on the popular Multiplayer Online Battle Arena game created by Valve and argues that "e-sports broadcasts is a kind of mnemotechnics — [meaning] technical memory support — as a framework for thinking about broadcast e-sport's shaping of experience players have with video games" (1175). Egliston continues by arguing "that the technicality emerging from the temporal and technical conditions and relations involved in the play of Dota 2 as skilled contest" (1175), and that this contest of technical skill falls into Bernard Stiegler's theory of technicity and how technical forms carry implications for human status through forms of technical application. Egliston defends this point of view by stating that "the assemblage of Dota 2 and its E-sport (as a mnemotechnic) alters how players perform and develop skill in the game" (1181) and add that it affects the status within the community of players and commentators of the game through higher skill.

Egliston's definition of mnemotechnics relating to technicity is unlike other misinterpretations of mnemotechnics. His choice of the word mnemotechnics seems to have happened by combining Stiegler's theory of technicity and an interpretation of the prefix *mnemo* to mean memory into a single word. A more apt definition of the intention of Egliston's idea could be "memories of technical application" or "memories of the expression of technical application by another," instead of using the word mnemotechnics. This new term, though coherent in its relation to Stiegler's theory, inadvertently muddles the potential application of the inventive memory of rhetorical history. Unfortunately, Egliston's use of mnemotechnics follows no historical conventions of mnemotechnics as it is known, including spatial language, backgrounds and images, or relationships between memories. More often, mnemotechnics is misinterpreted as spatial mnemonics.

It may seem then that the article "Spatial Mnemonics Using Virtual Reality" by Eric Krokos, Catherine Plaisant, and Amitabh Varshney would be one where mnemotechnics is treated as a spatial mnemonic, but this is not the case. "Spatial Mnemonics Using Virtual Reality" begins with an explanation of the memory palace, a commonly understood spatial mnemonic. Krokoc, Plaisant, and Varshney write that "memory palaces have been used since classical times to aid recall by using spatial mappings and environmental attributes" (27), describing memory palaces early as a "method of loci taking advantage of the brain's ability to spatially organize thoughts and concepts, [by] mentally navigating an imagined space to recall information" (27). They create an experiment where participants are placed in one of two groups. One group used a Head-Mounted Display to view an immersive room within either a palace or a medieval town filled with faces. The second group saw the same or a similar scene from a traditional desktop computer display. After being given five minutes to remember the scene and

the placement of the faces, each person, regardless of their group, was given two minutes where the faces would disappear, and afterward, they would have five minutes to recall where the original faces were in the room they viewed. Through their observations, Krokos, Plaisant, and Varshney conclude that "though there were no significant effects on recall for scenes, there was a significant effect for the display type… participants using the [Head-Mounted Display] were more accurately able to recall information than when using a traditional desktop" (29-30), showcasing an ease of understanding the objectives and successful completion of tasks by participants. These participants [using the Head-Mounted Display] reportedly felt "more immersed in the scene… affording them a superior sense of the spatial awareness they claimed was important to some of their success" in recall and understanding (29). While the hypothesis, user study, and related work concretely refer to spatial mnemonics, the conclusion of the article outlines "an alluring glimpse into the possibilities for memory enhanced virtual-environment-based tools and visualizations" (30).

Krokos, Plaisant, and Varshney swiftly identify "the integration of the user into the construction of their own personalized virtual environments, and the evaluation of their recall within those environments as compared to recall environments constructed by others" (30) as one of the key next steps with the success of virtual environments. While at first, their statement of users constructing personal environments could be interpreted as users creating their memory palaces, Krokos, Plaisant, and Varshney then write that users could be able to "drive the future design of virtual reality based information management and visualization tools" and "bring education into the virtual space" (30). With the objective of users being able to manage the virtual reality space for education, their statement reads more conclusively as users being able to create *backgrounds* on which to put images representing memories. With background and

images created by users, those users may then be able to rearrange mnemonic objects within that background for the unique education of each user. With these images being used "as an effective transfer of information between and amongst each other" (30), a practice begins to emerge in virtual space that behaves very similarly to mnemotechnics. This virtualization of mnemotechnics could allow users' lack of practice in visualizing and memorizing images and backgrounds to be supplemented by technology, increasing the users' ability to analyze the relationships between objects within a created virtual space without the need to do so entirely in their imagination. While not directly scholars of mnemotechnics, Krokos, Plaisant, and Varshney's conclusions and next steps set the groundwork for mnemotechnical study within virtual space, and their article is an entryway to a revitalization of the practice for users who may not yet know the term or application.

## What Could Be Gained From a Clarified Definition

Beyond the unity that a clarified definition of mnemotechnics brings to rhetorical studies, a clarified definition opens the possibility for other scholars to bring forth new ideas to their scholarship. For example, by limiting his conception of memory to just memory tasks, Griffith leaves out the possibility of more complex space-based challenges like troop positions or tactics that mnemotechnics could assist with by utilizing the relationship between images representing remembered positions. Armed with a clear definition, Tell could have had better tools to analyze the relationships between Augustine's interpretation of Memory and Understanding and, in turn, discussed how each of these ideas may have had a spatial relationship in Augustine's fields of memory. Egliston could have had an opportunity to innovate a new term and create new lines of discussion without being muddled with incorrectly utilizing terms from rhetorical history, and he

could have engaged more effectively with the way space and memory interact within DOTA 2 by better understanding what mnemotechnics is**.**

A unified definition of mnemotechnics also offers more conversations about articles that use mnemotechnics in interesting ways but were written prior to Carruthers and Bolzoni's trio of books. Most interestingly is a 1989 article published by Peter Emberley called "Places and Stories: The Challenge of Technology." In the article, Emberley writes about systems of terror operated by totalitarian regimes, describing that they were "dissolving the traditional into minute compounds… reconstituting each component, and then reconstructing. [Totalitarian Regimes] struck from human experience … the recollection of the past, the memories of place and history" (746). His writing of the images of cultural memories using "the language where things are presumed to exist and interact in enclosed space and sequential time" (747) and "the sequential arranging of places" (747) is an astute correlation to mnemotechnics. By viewing terror as an inventional practice, regimes of terror could employ a practice that furthers totalitarian ideals in a way that echoes the ancient practice of mnemotechnics. Emberley even showcases his understanding of the inventional interpretation of mnemotechnics by challenging Yates' lack of a definition of mnemotechnics, writing that while "Yates holds back from suggesting that [a mnemotechnical] composition of time and space as history and place is [related to] individual action, meaning, and events, [Václav] Havel's account of modern totalitarianism suggests that" it does (747). However, this article remains disconnected from any conversation of mnemotechnics because of a lack of a clarified definition, giving no room for new interpretation of mnemotechnics.

**<u>Conclusion</u>**

In this thesis, I have defined mnemotechnics as "an inventional practice evaluating the spatial relationships of memories within an imagined space, contained by a background, for a greater relationship using spatial language." I then evaluated two pioneers of the scholarship of historical memory practices, Mary Carruthers and Lina Bolzoni, to understand how the scholarship of mnemotechnics has been written in a more contemporary era. These evaluations were used as a foundation for evaluating scholarship before and after Carruthers and Bolzoni published their work to see how closely the scholars utilized mnemotechnics correctly, compared to mnemotechnics' definition. I then argued that misinterpretations of mnemotechnics were scattered across various forms of scholarship, even in the years following Carruthers and Bolzoni's works. Finally, I demonstrated howa unified definition of mnemotechnics could offer additional insight for existing scholarship.

By my unifying the interpretation of mnemotechnics to this thesis' clarified definition of mnemotechnics, more scholarship within and outside of rhetoric can be evaluated for incorrect usages of the word "mnemotechnics." This deviation, stemming from a lack of unified terminology, can then be rectified. Scholarship utilizing terms related to space and memory can be analyzed for the accuracy of their terminology, and related terminology can be applied to various disciplines for growth outside of the original application without losing the original intentions of the ancient rhetoricians who once held the inventional practice of mnemotechnics as the ultimate inventive ideal. Disciplines once unrelated may find overlapping practices, interpretations, and understanding through the accurate use of these terms, something that is currently impossible due to a lack of a unified term whose absence prevents scholars from interpreting their common ground. Finally, scholarship relating to memory, space, and invention may find new ground to continue historical conversations begun by Carruthers and Bolzoni and

new avenues for contemporary interpretations, spaces of learning, and applications that have not

yet been explored. The inventional application of mnemotechnics has applicability beyond

oration, but only through the unification of the term and its understanding can this applicability

be realized.

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