To my parents for their love, inspiration, motivation, and, above all, patience
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My argument, stated throughout this dissertation, is that the empowering practices of medieval textual and memorial production, observed in works like Dante Alighieri’s *Commedia*, share close relations to, and potential solutions for, the concerns of post-modern scholars, medium theorists and pedagogues who are particularly concerned with how subjects circulate within interactive, modular electronic information environments and how we will incorporate these new technologies and the subjectivities they circulate into the university curriculum. Reading and writing with and through images, immersing oneself into virtual spaces charged with bodily and emotional sensations, and interfacing with discourse as an interactive and modular experience are the dominant features of the emerging electrate environment. These features also dominate the functions of the *machina memoriae*, the machine of memory, found in the rhetorical practices of the Middle Ages. In particular, these features of new media relate to the construction of students’ memory palaces, which themselves satisfy and render the rhetorical demands of invention, arrangement, style, delivery, and memory. It is my opinion that a re-investment of these techniques into the Humanities Disciplines will re-enforce and increase their relevance to education at all levels.
As Dante the poet reflects upon the beginning of his pilgrimage at the opening of Canto II in *Inferno*, the poem reads, lines 3-9,

I alone/ prepared myself to undergo the war both of the journey and of the pity, which memory, unerring, will depict.

O muses, O high wit, now help me; O memory that wrote down what I saw, here will your nobility appear.

At this point, Dante writes, “I began” (*Inferno* II, 10), and so commences the amazing journey the Florentine takes along with his readers, not simply through a dream-like vision of the afterlife, but through the contents of his own thinking mind.

This dissertation highlights the concept of the *machina memorialis* (machine of memory), which held a central place in the medieval rhetorical canon as not only the “mill-wheel” for sorting information, but the “hoist” which enabled comprehension and composition of the sort seen in Dante’s *Commedia*. The discussion of medieval memory in this dissertation will foreground the habits that informed the scholastic and artistic uses of rhetoric in the Middle Ages, and note their usefulness for criticism and pedagogy which attempts to assess the changing habits of mind, society, and commerce emerging in the shift from a printed to an electronic apparatus for purposes of information transmission and storage. Computer driven communication technology is now reshaping the flow of information and the communicative acts occurring within it in a manner as radical as that evinced after the arrival of the printing press in the 15th Century.

Furthermore, my discussion of this technological shift will address the need for a re-designed rhetoric, teachable in the humanities classrooms of the 21st Century and able to keep
pace with the changes that expansion of electronic media is creating in the culture within which we teach and learn, and what a re-imagined understanding of medieval rhetoric, and particularly the *machina memorialis*, can do to serve as a both an insight into and resource for the formation of a new rhetorical method suited to the electronic age.

Currently, my efforts to extrapolate portions of the medieval rhetorical canon, particularly areas dealing with memory, and apply them to the goals set above with relation to humanities pedagogy and research in the 21st Century, have involved examination of the “habits” of both medieval and present culture. At this point, the notion of “Habits” has manifested itself in three forms during my research. In the first and most familiar sense, the word relates to the modes of mental, emotional, and social behavior that characterize the thoughts and actions of a community at a particular time and place. I have also, in the course of encountering congruences between the medieval culture of memory and the ever-expanding, electronically-oriented environment we live in, noted the tendency in both cultures to take on a disguise, an alternate persona, to cloak oneself in a ‘habit’ or ‘clothing’ suitable for public domains comfortable with the notion of a “virtual” reality. The media of communication are themselves the ‘trappings’ of communication. Indeed, Derrida points out that writing, imbued by western tradition with the idea that writing is the representation of “sensible matter” and possesses an “artificial exteriority,” is considered a “clothing” for speech.

In addition, I understand “habit” to possess a third sense connected to the correspondences between medieval mnemonic and modern electronic cultures explored by this dissertation. The mental and physical spaces within which a person circulates are his or her “habitations,” the places and identities we “inhabit.” Derrida’s radical, exploratory deconstructionist criticism often observes printed text and language itself, oral and written, as “space” and/or in “space” and “time,” and observes himself as a subject/critic/text circulating in various discursive “spaces.” Derrida himself writes in *Of Grammatology*, “deconstructive movements do not destroy structures from the outside, nor can they take aim except by inhabiting them in a certain way” (24).
In correspondence with recent postmodern criticism like Derrida’s that observes text as a habitation, as well as the work of Gilles Deleuze and Felix Guattari, who have exploited three dimensional metaphors like “the rhizome” to suggest new modes of logic, I have been surprised to discover that the medieval period demonstrates several examples of habitation within mental, physical, textual and “virtual” spaces wherein public and private behaviors bearing marked relationships to social exchanges emerging in our period took place, often distorting the distinction between public and private our culture is currently accustomed to, but is also in the process of rapidly transforming.

My attempt to explore the idea of “habits” shared by medieval and twenty-first century societies is motivated in part by the fact that the term is literally unavoidable amongst the body of work published in all areas of concern to this dissertation, be they pedagogical, medieval, post-modern, media-oriented or some combination. Robert O. Payne has already noted in his studies of Chaucer’s rhetorical habits in works like *Troilus and Criseyde*.

This question of habit of mind is extremely important. If we open a modern handbook of composition, we do not expect to find an eternally true set of principles, but an approach which betrays some specifically modern assumptions and attitudes concerning discourse.... And on this assumption it simply does not matter whether one considers Geoffrey (or Matthew of Vendome) and all the rest to have been grammatical hacks or wise and witty mentors. In either case, we may legitimately examine what they say to discover their principles and assumptions. (Murphy, ed. 29)

The emergence of deconstructive criticism over the past few decades has provided greater impetus and new critical approaches for humanities scholars attempting to investigate the “habits” of literate culture. In *Of Grammatology’s* discussion of the ‘science of writing,’ Jacques Derrida points out the impossibility of grammatology to “write its discourse on method or describe the limits of its field” because “the idea of science and writing is meaningful only in terms of an origin and within a world to which a certain concept of the relationships between speech and writing have already been assigned” (4).
Derrida’s grammatological analysis of the “graphic code” seeks to trace habits of signification or denotation, style and connotation, articulation of graphic forms and diverse substances, diverse forms of graphic substances (wood, wax, skin, stone, ink, metal, vegetable) or instruments (paint, brush) as to articulation of technical, economic or historical levels, ... the moment of constitution and then fixity of a system as to limit and sense of variations in style writing the system; all investitures to which a graphie, in form and substance, is submitted. (87)

Derrida goes on to describe language as “a structure (dis)oriented along a system of oppositions of places and values (216).

Derrida also claims the person who writes is, like the graphie, inscribed into this textual system (160), and in a effort to demonstrate the erasure of both subject and sign in the habits of this system, executes a “writing that is yet reading” (167), a meditation, undoing the logocentrism of writing as it has shaped and been shaped by the ideologies, institutions and technologies within which it circulates. This circulation is “the foundation of the possibility of logic,” itself a “matter of elaborating ... a formal doctrine of conditions which a discourse must satisfy in order to have a sense of order in order to ‘mean’ even if false or contradictory” (48).

Derrida’s key term in this grammatological analysis is differance, which he characterizes as “formation of form and being - the imprinted of the imprint” (63) and notes,

it is in the specific zone of this imprint and this trace, in the temporalization of a lived experience which is neither in the world nor in ‘another world,’ which is not more sonorous than luminous, not more in time than in space, that differences appear among the elements or rather produce them, make them emerge as such and constitute the texts, the chains, and the systems of traces. (65)

**Transition: The Emergence of Electronic Culture**

Ronald Deibert’s *Parchment, Printing, Hypermedia*, states that as mechanical replaced manual textual production, despite the early tendencies to simply make printed copies of important manuscripts, new innovations particular to print technology, such as cross-referencing and indexing, pagination, section breaks, running headers, title pages, standard copies,
“functionally matched” the “intellectual interest in the systematic comparison and critical evaluation of knowledge that characterized the new science” (77).

Furthermore, Deibert points out how eager merchants, artisans, lawyers, government officials, doctors, and teachers in growing towns became for the opportunity to utilize the new technology in all sorts of “social abstractions” such as contracts, bills of sale, deeds, court fees, licenses, contracts, constitutions, decrees, academic essays. This eagerness evinced a rise in literacy and “corresponding dependence on written documentation” (83) that served to spawn terms like “mass readership”, “best seller”, “reading public”, and the ubiquitous “author.”

With the rise of what Derrida, among many scholars and researchers in several fields, calls in Of Grammatology, cybernetics (9), we are in a moment of transition wherein “the death of the book is the death of speech and a new mutation in the history of writing, in history as writing ... a new situation for speech, of its subordination within a structure of which it will no longer be the archon” (8). Although “death of the book” prophecies have struck critics like Christopher Norris and Jerome McGann as a bit extreme, Neil O’Donnell nevertheless stresses in Avatars of the Word, “We live in a historical moment when the media on which the word relies are changing their nature and extending their range to an extent not seen since the invention of movable type.” The reinvigoration of the spoken word via the telephone and radio as well as its supplementation by the moving image on film and television has been followed in the latter portion of the twentieth century and the beginning of the twenty-first century by the “invention and dissemination of the personal computer and now the explosive growth in links between those computers on worldwide networks of the Internet [which] create a genuinely new and transformative environment” (O’Donnell 9).

In order for humanities research and pedagogy to keep pace with the technological transformations which, McLuhan claims in The Gutenberg Galaxy, are moving us deeply into the “electric age as the Elizabethans were into the typographic age” (7), Jack Goody urges in Domestication of the Savage Mind that tracing the influence of new technologies is “intrinsic to an understanding of our individual experience in the world at large both in space and time” (3).
However, current research into the effects and potential of the shift from print to an electronic apparatus is complicated by categories of analysis rooted in the “binary, ethnocentric divisions” (Goody 1) the printed word and its adoption by all fields of inquiry has enabled. The list, category, table, essay and formula have structured the logic and perception of individuals and institutions in our print-oriented culture via their capacity to “not only ‘reflect’ certain aspects of social organization, [they] also determine other aspects in that they have certain implicit features (such as hierarchy and placement) that influence behavior, as well as other explicit features that prescribe it” (Goody 129).

Gregory Ulmer declares in *Teletheory* that the shift from a print to an electronic apparatus “introduces a new dimension into the relationship between oral and written registers of language, requiring and making possible nothing less than another round of inventiveness of the sort that produced philosophy in ancient Greece and science in Renaissance Europe” (92). Along with Ulmer, a growing number of critics and pedagogues are arguing that the time has come for the humanities disciplines to actively engage and influence the communications revolution taking place within the emerging electrate environment. O’Donnell speaks well for the group in *Avatars of the Word* when he declares, “At a moment when all the conditions of scholarly discourse are about to be upended by the transformations of electronic technologies, there is an important opportunity to reconsider what it is we scholars [and pedagogues] seek to do, how we seek to do it, and what we can reasonably expect to achieve” (133).

A major obstacle to efforts at revisioning and reconceiving scholarly and pedagogical practice is what Agamben has called the “schizophrenia of western culture” (*Stanzas*, xvii) whereby knowledge and knowing has been divided between the poles of inspired, ecstatic, emotional artistic production and rational, intellectual, scientific discourses. Jerome McGann concurs in *Radiant Textuality* and notes that this conceptual schism is a rather recent development whereby,

For several centuries - but only for several centuries - our models for knowing have been ‘scientific’ and were cast in informational and expository forms. These forms do
not normally cultivate self-reflection however deeply they may reflect upon matters they set apart from themselves to observe and interrogate, and least of all do they practice self-reflection on their medium of exchange. But that kind of reflection is precisely what happens in imaginative works, where the medium is always the message, whatever else may be the subjects of the work. (183)

Agamben echoes this sentiment and states, “We moderns, perhaps because of our habit of stressing the rational and abstract aspect of the cognitive processes, have long ceased to be amazed by the mysterious power of the internal imagination, of this restless crowd of ‘metics’ (Freud) that animates our dreams and dominates our waking moments more than we are perhaps willing to admit” (77).

The concern with what effect logic expressed by the written word has on cognition and imagination has a long-standing presence in western philosophical tradition. Plato’s *Phaedrus* contains the oft-discussed passage wherein Thamus warns Theuth that his new invention, writing, “will produce forgetfulness in the minds of those who learn to use it because they will not practise their memory. Their trust in writing, produced by external characters which are not part of themselves will discourage the use of their own memory within them .... [For] they will read many things without instruction and will therefore seem to know many things, when they are for the most part ignorant and hard to get along with, since they are not wise, but only appear wise” (qtd. in Yates 38).

Frances Yates, Walter Ong, and Marshall McLuhan, among others, have noted that the invention of the printing press accelerated the process described in the preceding quote by enabling the development of pedagogical methods, like those of Peter Ramus, influential in their notions of standardizing and generalizing teaching and learning ‘by the book.’ Frances Yates has noted that with Ramus, “memory is divorced from emotion and set with the abstract order of dialectical analysis” (234). Ramist method, “keeps and intensifies the principle of order but does away with the artificial side, ... which cultivated the imagination as chief instrument of memory” (236).
Ong notes that the student’s mind switched to a generalized doctrinal method (157) wherein, “instead of talking about what he knows of ‘things themselves,’ the student explains what curriculum subjects are in his mind and the sequence of their acquisition” (*Ramus: method and the decay of dialogue* 198). The result of these developments was a movement from a craft, or *ars*, learned via apprenticeship and to a ‘scientific discipline’ taught from a text-book, a method which has come to dominate the curriculum at every level of education and in every area of study.

Mary Carruthers, in her excellent following up of Yates’s earlier work in the *Art of Memory*, notes that “rhetoric is now distinct from ‘self-expression’” (*Craft of Thought* 11) and that the main emphasis in literary studies has been on hermeneutics, while the basic craft involved in making thoughts, including thoughts about the significance of texts, has been treated as “unproblematical” (4). Rather, “we are taught to ‘legitimate’ our reading (i.e. interpretation, understanding) solely by the text; we see ourselves as its servants” even though “both the possibility and utility of such absolute objectivity have been called into question many times” (*Book of Memory*, 164).

Vattimo’s *Beyond Interpretation* represents one of the more eloquent voices to have been raised against what he calls, “the history of the imposition of a scientific conception of the truth and thus the history of the progressive affirmation of the enlightenment” and “the history of a process via which our awareness of the essentially interpretive character of every consciousness of truth has been lost” (44). Vattimo argues, “in order to become a general theory of interpretation (and of existence as interpretation) hermeneutics must cease to be identified with a series of rules for the comprehension of a special category of texts, subordinate and instrumental, whose significance depends entirely on the right attributed to the text itself” (43).

Several critics like Derrida, Vattimo, Agamben, Rorty and Kittler have pointed to the emergence of advanced technological media circa 1900 as representing “a decisive historical discursive caesura altering the ‘structure, placement and function of cultural production’” (*Kittler xxi*). All of the aforementioned critics note Freud and Nietzsche as major figures representing
the break from the sense of progress, emancipation, equality, justice and truth which marked intellectualism of the 18th and 19th centuries, and the shift toward attempts to deal with the experience of genocide, annihilation, emptiness of ideals and scepticism in the twentieth century. For Rorty, the importance of the two men resides in his recognition that both Freud and Nietzsche provided ways of thinking of the creator of metaphor, rather than the contemplator of literal truth, as the paradigm of humanity (Wood, ed. 81). Nietzsche was particularly scathing in his attacks on the state of the education of writing and literature in his native Germany. In his eyes, the techniques of humanism, which had evolved as weapons of rebellion in the service of human freedom, had become instead the “pedantic tools of comfortable bourgeois professors seeking to preserve a social and cultural order” (qtd. in O’Donnell 145).

Like Derrida, Nietzsche favored a “meditative,” active interpretation, engagement and application of learned, written material over what he called “merely conceptual translation” (Will to Power), and argues in On the Genealogy of Morals, “one thing is necessary above all if one is to practice reading as an art in this way, something that has been unlearned most thoroughly nowadays - and therefore it will be some time before my writings are ‘readable’ - something for which one has almost to be a cow and in any case not a ‘modern man’: rumination” (qtd in Transforming the Hermeneutic Context Ormiston and Schrift, eds. 46). Nietzsche continues this argument for meditative reading in Twilight of the Idols, writing, “Learning to think in our schools one no longer has any idea of this. Even in the universities, even among the real scholars of philosophy, logic as a theory, as a practice, as a craft, is beginning to die out. One need only read German books: there is no longer the remotest recollection that thinking requires a technique, a teaching curriculum, a will to mastery - that thinking was to be learned like dancing, as a kind of dancing” (50).

**Challenge: Problems Facing the Humanities Disciplines**

The intense, far-reaching transformations that new media are having on communicative acts in the public sphere are forcing humanities scholars to bring issues of the sort highlighted by Nietzsche to the fore with ever-increasing frequency. Jerome McGann stresses,
Information scientists and systems engineers will be (already are) much involved with these changes. But it is the literary scholar, the musicologist, the art historian, etc. who have the most intimate understanding of our inherited cultural materials. Hence the importance that traditional scholars gain a theoretical grasp, and, perhaps even more important, practical experience in using these new tools and languages. For ‘theory’ in this volatile historical (and historic) situation will have little force or purchase if it isn’t grounded in practice. (169)

A number of conceptual and methodological barriers, due in large part to the “schizophrenia” of our culture positing a division between critical, reflective acts and those considered artistic and imaginative, and the inability of traditional modes of scholarship to apprehend and utilize the features of the developing electronic environment, remain present within the fields of humanities research and pedagogy before digital technology can successfully be utilized in criticism and the classroom. For more than a decade, Jerome McGann and his colleagues at the University of Virginia’s Institute for Advanced Technologies in the Humanities (IATH), have undertaken projects that confront the problems of incorporating digital, multimedia communication technologies into the discourses of the humanities. The group’s major motivation for these projects is, as McGann notes in his preface, that “Digital technology has remained instrumental in serving the technical and precritical occupations of librarians and archivists and editors. But the general field of humanities education and scholarship will not take the use of digital technology seriously until one demonstrates how its tools improve the ways we explore and explain aesthetic works - until, that is, they expand our interpretational procedures” (xii).

Several qualities of the electrate environment must be addressed if this challenge is to be successfully overcome. Deibert claims the transmission of information via web pages and other electronic textual forms is creating an increasingly “authorless” environment quite different from the ideas of copyright, publishing and intellectual property that have marked the existence of the author in a culture dominated by a print apparatus. Furthermore, digitization of information makes all bodies of information translatable into one another, produces the capacity for instant
recall and transmission within totally inclusive information networks, features non-linear
cognitive orientation favoring jumps in intuition over step-by-step logical chains, and creates
virtual worlds which substitute normal sensory input with information generated by the
computer. Deibert feels these transformations are also marking an increased blurring of
divisions between the public and private sphere which the humanities must address.

Neil O’Donnell also feels the undeniably more complex interplay among different medias
in this electronic age is presenting several problems to traditional humanities scholarship. In
particular, O’Donnell, Kittler, and McGann point out the new set of aesthetic resources emerging
with electracy which are quite different from those involved in the reader’s interface with the
printed page. Kittler notes that with the rise of the moving pictures of the cinema, the most
beautiful, most common and most shocking subject matter achieves a miraculous dimension
(247), and is imbued with great power to contain and shape a community’s memory as notions of
“shocks,” “popularity,” and “mass orientation” have taken hold in film.

In The Language of New Media, Lev Manovitch notes that the image has re-acquired the
role of an interface first through the photograph, cinema and television, and now through the
image map, the link, and the desktop. Furthermore, Manovitch claims that “aesthetics of post-
modernism” (141) have become embedded in the commands and interface metaphors of the
computer - tools such as copy/cut/paste, search, composite, transform, and filter, which are
themselves no longer tied to software, but now also to the social world (118). This essence of
our culture finds embodiment in the DJ’s ability to mix selected elements in rich, sophisticated
ways in a real-time transition amongst very different musical layers (135).

Even more problematic, as well as compelling, is the increasing presence and importance
of hypertextual documents which incorporate the moving images and sounds of radio, cinema,
and television into the technologies of hypermedia. O’Donnell claims the central fact of the
future for humanities scholarship and pedagogy to deal with regarding hypertext is diversity. He
writes, “The single-author, linear structure monograph will survive for a while, but it will
become what it already is in principle: a component of a larger whole. Online publications of
monographs will facilitate a multiplication of approaches and comparative interaction” (133). Juxtaposition and comparison will become dominant habits for scholars and students alike and primary and secondary materials will interact more powerfully than before because both will appear side by side online and “the controverted passage will be linked to multiple articles and treatments directly, and then also to intermediate links that would seek to organize and arrange the body of secondary literature” (134).

An emerging difficulty associated with applying these new habits in the humanities, and one that critics and pedagogues are actively examining, is the fact that information is appearing “mashed together in a mighty jumble [with] pieces of files interleaved with pieces of other files, and bits of deleted files strewn between” (O’Donnell 61). In addition, what Jerome McGann calls the “specific material design” of hypertext “is theoretically open to alteration of its contents and its organizational elements at all points and at any time” (71). McGann emphasizes that hypertexts are never “complete.” They remain “open” texts with the ability to incorporate and then go beyond their initial design and management. Hypertexts “evolve and change over time, gather new bodies of material and organizational substructures will get modified, perhaps quite drastically.” Furthermore, hypertext “does not focus attention on one particular text or set of texts,” but rather disperses attention broadly, creating greater decentralization of design around an indefinite number of “centers,” expanding their number and altering their relationships (McGann 72).

Repeatedly, critics have noted that the solution to attempts at apprehending and using these electronic aesthetics lies in the individual user’s new empowerment in hypermedia. O’Donnell discusses at length how important the end-user’s intelligence becomes in the interface with hypertextual documents. As hyperlinks, as opposed to indexes and glossaries, have become the dominant lines of travel from one item to another, the keyword searches of online search engines now allow for a user to create his/her own topic of exploration. With print, “‘truth’ is independent of the speaker and in that way external to human beings” and achieves an objective power (O’Donnell 141); conversely, hypermedia evinces a move away from “the universal gaze
of knowledge” enabled by print and a return to the “knower” (Wood, ed. 14). Individuals are increasingly formulating their own organizational patterns for the purpose of navigating the digitally transmitted information of hypertext.

Hypertext theorists regularly imagine spatial and mapping metaphors to describe this process (McGann 88) and the word “cybernetics” itself comes from the Greek, kybernetikos, which translates as “the art of the steersman.” The term was taken up by Derrida and the host of post-modern theorists following him as the “steerage” (Of Grammatology 84) necessary for navigating one’s own discursive habits and overcoming “the suppression of pluri-dimensional symbolic thought” (86). As I noted briefly above, several postmodern critics have tended to describe language itself as a virtual space. Diebert cites Lyotard’s attempt in The Post-Modern Condition to frame language as “an ancient city and a maze of little streets and squares, of old and new houses, and of houses with additions from different periods, and this surrounded by a multitude of new boroughs with straight regular streets and uniform houses” (188). Kittler characterizes cyberneticians as those who adopt the principle of making “order from noise” (xxx).

Indeed, the principle of a user’s ability to “make” order is crucial to the interface with hypermedia. Jerome McGann notes that, particular to the emergence of hypermedia technologies, “people came to build things with digital tools rather than simply to reflect abstractly on the new technologies” (5), and in hypertext, “one is encouraged not so much to find as to make order and then to make it again as established orderings expose their limits” with the result that “in a hypertext, each document (or part of a document) can therefore be connected to every other document (or document part) in any way one chooses to define a connection” (72-73). Therefore, in “making order,” a user moves through, navigates, a hypertext and performs “complex interactive transformations” upon the information he/she encounters. O’Donnell calls the successful cybernetician a combination of “the pathfinder Natty Bumpo and a Jedi Knight” (43).
O’Donnell also sees “publication” becoming more of a form of continuing seminar, an interactive, dialogic, self-correcting performance which grows and builds in the public sphere in a manner quite different from the fixed, sequestered nature of the printed work. Nevertheless, O’Donnell sees great potential in this polyphonic transmission of information and notes, “Both oral discourse (before and beyond the written word) and the networked conversations that already surround us suggest that in the dialogue of conflicting voices, a fuller representation of the world may be found” (41).

To illustrate some of these possibilities, O’Donnell imagines what shape the study of a figure like St. Augustine might take online. Multimedia, digital technologies have the capacity to create a space belonging more nearly to Augustine that facilitates navigation more powerfully than any print archive can do, that encourages systematic and comprehensive questions that generate results from the whole range of a huge oeuvre. It will be less possible to separate off a single line of thought. Inquiries that connect and integrate will enrich a common resource and our sense of possibilities. The results will be more resistant to distortion because the results will still be located in the space of Augustine, not torn off and taken to another space. (136)

In addition, O’Donnell also feels interdisciplinary studies will be more effective because hypermedia forces a “move beyond the sequestration of books into traditional disciplinary categories” (137).

The efforts of Jerome McGann and his associates, who have contributed from across the curriculum with projects in music, art history, linguistics, architecture, urban planning, religion, archaeology, etc. to UVA’s IATH, are already testament to this potential. McGann laments that, thus far, apart from his efforts and those of his colleagues, the humanities’ concern with digital technology has revolved around expansions of the library models of sorting, accessing and disseminating large bodies of material and investigations into particular problems with computational styles and linguistics (xii).
With regard to new technologies of information and communication, work in the humanities has yet to fully engage “questions about interpretation and self-aware reflection,” (xii) which have traditionally been the core concerns of humanities scholars and educators, and the transformations of these processes taking place within electracy. The growing influence of visual and audial features in communicative acts, an influence which has been resurgent since the middle of the 19th Century, necessitates investigations of the aesthetic qualities which set electronic modes of information storage and transmission apart from the austere environment of the printed word. Unfortunately, “discursive procedures in traditional philosophy, ‘theory,’ hermeneutics, and arts/literacy/cultural criticism remain resolutely paper-based [and] new textual environments have yet to develop operational structures that integrate archiving and editorial mechanisms with critical and reflective functions at the foundational level of their material form, that is at the digital/computational level” (McGann 17).

For McGann and a growing number of humanities scholars, “hyperfiction and video games have a functional relation to underlying digital processes more advanced in the practico-theoretical point of view than any of the IT-based scholarly works like the Rosetti Archive, the Perseus Project, the Dickens Web, and the Labyrinth” (17). How these digital forms of entertainment and information can be made into “prosthetic extensions” (18), tools, for critical reflection in electronic culture, remains the great task facing humanities scholarship and pedagogy at this time.

Current efforts to re-think critical and pedagogical methods in response to these new digital aesthetics are complicated by the broad heuristic distinction, the “schizophrenia,” that separates informative from imaginative texts. McGann notes, “The former aspire to transparency, the latter to noise, redundancy, repetition. One is vehicular, the other, iconic” (199). This divide, a product of educational and cultural habits, must be eliminated if the “computational, simulating and interactive capacities of these new machineries [can] be taken up as mirrors of the same kind as our traditional texts and other semiotic manifolds” (McGann 217).
Over and again, humanities scholars working on problems of text and textuality have pointed to the writings of Nietzsche and Derrida as important guides for re-visioning the textual habits of the digital moment. As noted above, both men emphasized a meditative, emotional, self-conscious, active engagement with the texts surrounding and shaping oneself. For Derrida, the pursuit of the trace means tracking a pathway [parcours] in the heart (61), thinking with a greater understanding of the origins of one’s own Pathos and not simply the abstract representations of Logos. Nietzsche also felt that one only truly retained the lessons learned through the most searing, painful emotional episodes in one’s life.

**Connection: Corresponding with the Middle Ages**

Increasingly since Nietzsche, critics have searched for a performative critical discourse that combines the imaginative, inventive expression of ideas in the process of *poesis*, the poetical act, and the *gnosis*, the logical, concept forming argument, and thus suture the ideological and institutional divide creating the conceptual, educational “schizophrenia” which critics have confronted for some time. And, like Nietzsche in the quotes mentioned above, it has been my surprise to find more and more scholars working in post-modernism and medium theory turning to the scholastic and artistic habits of the Middle Ages, which scholars now know possessed an intensely rhetorical character, as a resource for creating a rhetorical vocabulary suited to our changing information environment.

Critics and pedagogues have long been excited by the experiments of arts like surrealism and theories like post-modernism and the potential they express in terms of a new empowerment and engagement for the subject of language with the objects, tools, of discourse itself, namely, signs and symbols. Jerome McGann writes in a hopeful tone that our sense of language “in every sense - has been renewed, restored to something like the richness it possessed in the Middle Ages and that is still available in the works descending to us from that remarkable period - pre-eminently in its greatest invention, the medieval church and cathedral - multimedia environments which flung open the doors of human perception.” McGann goes on to claim that
contemporary instruments of hyper and multimedia fiction constitute a profane resurrection of those once-sacred models of communication (xiii).

This “richness” of medieval culture was not limited to church buildings alone. Neil O’Donnell notes that the history of medieval manuscripts “is the history of the exploitation of the possibilities of the codex page. Arrangements of material on the page made information more accessible and facilitated cross-movements of various kinds” (55), and though we live in a world where the idea that it is “not quite clear who is the author of a collective, cumulative and collaborative work of scholarship may sound very novel, ... it is also very old” (63). O’Donnell also notes the discussion of Richard Lanham on “the austerity of decorum that print texts have achieved, and the departure this represents from the efflorescence of image and adornment in late medieval books” (138).

Critics like Agamben have also begun to explore connections between fascination with the power of the image already noted in the works of Freud and Nietzsche and the way that greater understanding of the medieval “efflorescence of image and adornment” for purposes of art, information and education might enhance, and create praxis out of, this fascination. In Stanzas, Agamben notes Freud’s extensive analysis of the hypertrophy of the imaginative (phantasmatic, phantastic) faculty and claims it is “probable that contemporary psychoanalysis which has re-evaluated the role of the phantasm in the psychic process and which is intent on considering itself, always more explicitly, as a general theory of the phantasm, would find a useful point of reference in a doctrine that many centuries previously, had conceived of Eros as an essentially phantasmatic process.” Agamben continues his argument, claiming the medieval phantasmatic pneume represented a powerful and useful union of the corporeal and incorporeal and that “not even in the most exalted Romantic theorizing has the imagination been conceived in so elevated and, at the same time, concrete a fashion as in the thought of this period, which, surely more than ours reserves the name of ‘civilization of the image’” (98).

Post-modern critics like Derrida have attempted to uncover the “richness” of verbal and pictorial signs by imbuing their work with a high degree of poesis - the interaction of rhetorical
precepts with artistic practices and habits of composition (Eco, *Art and Beauty in the Middle Ages* 41) - which creates a “poetics” - the study of the structural mechanisms of a given text which Derrida exposes as possessing self-focusing qualities and a capacities for releasing effects of ambiguity and polysemy - resonating with analytical and imaginative energy.

Umberto Eco notes in *Chaosmos* that the “Medieval curriculum created a space for learning through poetics of this sort” (1) - a simultaneous showing and telling. Unfortunately, Barilli has pointed out that “after Ramus, poetics ceases to be considered a discursive art that comprehends the other arts within itself” (65). It is this trend, so amenable to the pedagogical and critical practices found within a print-oriented apparatus, which post-modern theories, Nietzsche’s ruminative writings, Joyce’s textual experiments, and present attempts to reshape humanities scholarship and pedagogy have struggled against in ways which, as I have and will continue to argue, turn again and again to the scholarly and artistic practices of the Middle Ages for resources and insight.

Indeed, direct connections between Derrida and the Middle Ages run deep. Neil O’Donnell reveals “Derrida himself a boy growing up on the Rue St. Augustine in Algiers, reflected on his own life, culminating in the death of his powerful mother, in a work he calls ‘circumfessions’ with a double allusion to Augustine’s liminal prayer “circumcise my lips” (*Confessions* 11.2.3) and to *Confessions* themselves” (130). Augustine’s use of his own personal memories in making arguments in favor of the Christian life provided an important model - used, amplified, and modified throughout the Middle Ages in works of art and scholarship - which has been taken up again by those critics attempting to reform the core techniques by which our present curriculum is taught and apprehended.

Rhetoric is the area of the humanities education and scholarship which possesses the most potential to be a major tool in the renovation of the curriculum now necessary in the wake of electracy’s emergence. Richard Lanham reminds us that rhetoric is a very old discipline and feels “a magically benign cultural continuity emerges from its reappearance” (O’Donnell 149). Lanham’s excellent entry for the term “Rhetoric” in his *Handlist of Rhetorical Terms* (2nd ed.
1991) notes that rhetoric itself has “always tended to outgrow its original concern with persuasive public speaking” (131) and has been re-shaped and re-defined repeatedly over millenia to meet the needs of succeeding philosophies and cultures.

Lanham raises several issues in his brief discussion which are of particular interest to this dissertation, not least the problem of the unmanageable distinction, or in Agamben’s words the “schizophrenia,” created by “the analogy between poetry and rhetoric on the one hand and pure and applied science on the other (poetry : pure science / rhetoric : applied science)” and stresses, “where the two bodies of theory overlap - the connotative, suggestive, metaphoric use of language - one must have recourse to whatever set of categories suits the present purpose” (132). Unfortunately, American education has compounded Ramus’ reduction of rhetoric to “largely a matter of verbal ornament, of style” (133). Lanham writes,

By an odd quirk which may reveal something of our naive national character, “rhetoric,” in American education, has come to be synonymous with “prose composition.” The underlying assumption of such a synonymity must be that the student, once she know the arts of language, will use them to present clear meanings clearly, rather than to deceive. There is no reason not to use “rhetoric” in this way, but no one should mistake such a hopeful redefinition for the complex historical fact. In recent years, the movement in literary theory called Deconstruction has done its best to quash such naive hopefulness and restore rhetoric to its rightful throne as “par excellence” the region of the Scramble, of insult and injury, bickering, squabbling, malice and the lie, cloaked malice and the subsidized lie” (Burke, *A Rhetoric of Motives*, p. 19). Just after this passage though, Burke dwells on the irenic and socially integrative functions of rhetoric, and this aspect has attracted its “constructive” apologists as well. (134)

Using contemporary terminology, Lanham defines rhetoric as “the science of human attention structures” and expands this statement by emphasizing,

Such a definition, by restoring to rhetoric’s domain in full force the last two [after *inventio/heuresis*: invention; *dispositio/taxis*: arrangement; *elocutio/lexis*: style] of the traditional five parts, delivery [*actio/hypocrisy*] and memory [*memoria/mneme*], would answer Plato’s characterization of rhetoric as a pseudo-science having no subject matter. Memory, we are coming to see, is an active agency of creation not a passive curator of the past. Delivery, in its turn, would now include all that we think of as “non-verbal communication.” And the manipulations of gesture and voice which defined delivery, we now know, are talents by no means restricted to *homo sapiens*, or indeed to primates.
Allow this broad band of expressivity back into rhetoric’s domain - and surely it was there to begin with and we are to blame for attenuating it - and rhetoric has a “scientific” subject matter which includes large parts of, for example, sociology, social anthropology, and behavioral biology. (135)

Not only should rhetoric be moved beyond the bounds of the essay and book writing form which dominates all levels and areas of education, but, because the technologies of the classroom will also be the technologies shaping the everyday lives of students and teachers alike, Gray-Rosendale and Gruber emphasize it is imperative to “see rhetoric and its study not as a remote body of knowledge but instead as part of professional and personal value systems” (2). If rhetoric is not revived and expanded by the humanities and actively employed in efforts to reshape the liberal arts education that a student will receive in the digital age, then, as O’Donnell warns “our institutional vision has failed when it is not clear to our deans or to our students what the classics have to do with sociology, or clear to anyone what the liberal arts have to offer the businessman on a flight to Japan other than a badge of class distinction, distracting entertainment and a sense of cultural superiority” (147).

**Relay: Rediscovering Memory**

Several features of medieval culture’s engagement with and application of rhetoric present useful relays for the renovation of the techniques and teaching of rhetoric in the electronic age which, as previously noted, post-modern and medium theories have alluded to, but never fully explored. Just like authors of the present day, “medieval authors depended upon shared habits of reading in order to convey their views and beliefs to their audiences” (Morse 5). James Murphy feels the applications of rhetoric by scholars, artists and artisans of the Middle Ages, the inheritors of the Greco-Roman legacy, possessed a “broader compositional spirit than Cicero or Aristotle contemplated” and that “scholars have been reading applied rhetoric in medieval texts and did not know it” (ix).

The dissociation in the Middle Ages of rhetoric from a specific subject area made it ancilla to other arts like poetry and gave rhetoric a flexibility and _praxis_ lacking in modern, print-oriented notions of its uses. In this applied context, rhetoric was much less restricted and
much more able to meet its three goals of: *docere*, to teach on an intellectual level (logos); *movere*, to touch feelings (pathos); *delectare*, to keep interest alive (ethos). This level of application to which rhetoric was subjected, unique to the Middle Ages and quite commonplace, created in works of art and scholarship (which were often one and the same), what Jerome McGann calls a “praxis of theory we are familiar with, though perhaps not so much in a humanities context: the process of imagining what you know, testing it, scaling it up, modifying it, and then reimagining it: and then the process of repeating that process in an indefinite series of iterations and modifying your work as a consequence” (88).

Ruth Morse has noted in her work, *Truth and Convention in the Middle Ages*, “Rhetoric could be a scheme of study, or it could be, more persuasively, but perhaps more intangibly, a habit of mind, a set of assumptions about how words [and images] represent the world - or other words” (9) and “the assumption that one reads for something other than the surface meaning of the story is thus inculcated from the earliest lessons in reading and writing, and becomes a habit of mind. The habit of reading analogically was preparation for the ‘hard text’ of Scripture” (44). The commonplace acceptance of metaphor and allegory as the true meaning behind surface language (200) was enabled by the training students received in building up and organizing their own memories. Personal, cultural and educational memories were shaped, organized and utilized through the student’s imaginative generation of symbols, condensation, displacement, synonyms, puns, etc.

Whereas in the present day, invention and memory of this type is the concern of psychological and philosophical discourses, in the Middle Ages they were firmly in the domain of rhetoric. Memory was considered the “bridge” between the corporeal and the intellectual, an intermediate power related to both the intellect and the senses, at once sensual and spiritual, incorporating bodily senses, imagination and intellect (Payne 271). Giuseppe Mazzotta has extensively explored how, in the medieval mind, the world of rationality was inseparable from imagination, and their conjunction in the memory arts, whether for purposes of learning or production of an intellectual and/or artistic work, created, in the words of Eco, a polyphonic zone
of fertile ambiguity (*Chaosmos* 65) driven by an unending cycle of alternations, recurrences and connections, creating a virtual space within which, according to Morse, “intertextuality, narrative indeterminacy, the range of authority and play, and sheer pleasure” intersected (244) and exhibited “not a lack of structure, but a superficial structure with a strong underlying structure in a cunningly organized network of mutual relationships (Eco, *Chaosmos* 67) with which one could “conflate performatively image, word and commemoration” (Enders 53).

In his study of the correspondences between medieval habits of mind and the poetics of James Joyce in radical texts like *Finnegan’s Wake*, Umberto Eco has stressed, “early moderns knew by imagination, before mathematical formulation, that the universe was no longer a rigid hierarchy of immutable and definitive modules of order but something moving and changing. In such a universe, contradictions and oppositions do not constitute an end to be reduced by abstract formulas, but they form the very core of reality” (83).

Mary Carruthers has also noted that the imaginative medieval learning process, the inheritor and transformer of ancient rhetoric, was above all based in a memorative process not restricted to the modern concept of “memory,” and driven by the *machina memorialis* (machine of memory), which conceived of memory “not only as “rote,” the ability to reproduce something (a text, formula, list, incident), but as a matrix of reminiscing cogitation, shuffling and collating ‘things’ stored in a random-access memory scheme, or set of schemes - a memory architecture and a library built up during one’s lifetime with the express intention that it be used inventively” (*Craft of Thought*, 4), not only for purposes of argument, but the construction of an “edifice of one’s own life ... [which] although created [in part] from stories available to all citizens, is also a fully personal creation, an expression (and creation) of one’s own character” (21). Augustine himself, from whom so many medieval conceptions of art and learning emanated, declared that “to cut one’s life out of one’s memory would be to destroy one’s very self” (as qtd in MacDonald 185).

This inventiveness of the *ars memoria* emerged, in part, from the prevailing notions of the age’s prominent thinkers on how exactly the human mind built up knowledge. Augustine
emphasizes in *De Trinitate* that “what we know is born from the knowledge that memory retains” (as qtd in Morse 129). In the view of Albertus Magnus, because of the epistemological condition that no human can have direct knowledge of any ‘things,’ all knowledge depends on the *ars memoria*, and so it is retained in images, fictions gathered into several places and regrouped into new ‘places’ as the thinking mind draws them together. The idea of memory as a repository, a sort of treasure-house, persisted throughout antiquity, the middle ages and well into the centuries following the arrival of the printing press. Education in the Middle Ages meant construction of experience and method out of knowledge (Carruthers, *Book of Memory*), and one’s ‘memory palace’ was designed to provide mnemonic ‘places’ within three-dimensional spaces in one’s mind which served as ‘gathering places’ and points of departure for whatever topic a student was thinking about.

Carruthers herself has not been able to avoid the temptation to use the terms of computer technology in attempts to describe the fundamentals of medieval memory work, in particular the principle “to ‘divide’ the material to be remembered into pieces short enough to be recalled in single units and key these into some sort of rigid, easily reconstructable order - random access (RAM) by means of which one can immediately and securely find a particular bit of information” (*Book of Memory* 7). A student’s ability to keep track of each location in relation to the others in its own and related sets through the use of ordering schemes which emphasized contiguity and direction allowed for a more heuristic sort of learning characterized by Carruthers as “getting from one place to another” in your thinking mind.

In the *Didascalicon*, Hugh of St. Victor presents the use of this sort of memory as the enabling device for a student’s journey from ignorance to contemplation of higher matters which unfolds as 1. An overwhelming jumble of information, 2. The collection of objects from this jumble for learning, 3. The contemplation of these objects which leads to a meaningful pattern. In the *Commedia*, the “selva oscura”, dark wood, that Dante confronts in line two of *Inferno* I corresponds to Hugh’s use of the metaphor to describe the “mass of unrelated and disordered
material” which impedes a student who is untrained and therefore unorganized as Dante the pilgrim is at this point in his mental journey.

A good ordering scheme with the contents of a student’s knowledge in their ‘places’ provides a ductus, or way among the loci, a network or route through one’s memory that utilizes personal experience, the culture at large and one’s education for the purposes of inventory and inventiveness. When Dante laments the loss of the “straight way,” la diritta via, in the dark wood, he mourns not simply the lack of a path to Divine awareness, but the lack of ability to access and apply his own body of knowledge as a Christian and a poet. In short, the man has lost his mind and the ordering scheme of the three realms of the afterlife that he adopts allows him to build a bridge, in his medieval Italian a ‘commedia,’ back to it.

One of Neil O’Donnell’s points concerning humanities scholarship in an online, multimedia environment which is crucial to my attempts at marking congruences between medieval and emerging scholarly and textual habits, is the idea that the “heuristic quality of life in cyberspace and the ease with which multiple paths can be created will let [users] indulge in the high-spirited play of manipulating the tokens of the past in as many different ways as we can imagine” (137). “Play” of this sort was central to the rhetorical practices that imbued the art of poets like Dante, Chaucer and their contemporaries and constitutes only one of the many connections between medieval and present day culture that I will discuss in detail in this dissertation.

The Book of Memory emphasizes that students were encouraged to “avoid received meanings for constructing mnemonically valuable markers” (Carruthers 21). Students generated their own ‘habitual’ schemes rather than relying on those of others. These could be in the form of a house, church, the street system of an entire city, or, in Dante’s case, the bolgia of Hell, the terraces of Purgatory’s mount and the celestial spheres of Paradise. These schemes were populated with imagery that personalized and made accessible the information stored within them.
It is also important to remember that memory models with which Dante would have been familiar, such as Hugh of St.Victor’s *arca sapientiae*, were mental encyclopedia whose lineaments could merge and shuffle about in the way that mental-images are able to do, but two-dimensional ones fixed on a page cannot. Good use of the principles of order and direction allowed the student to access any piece of knowledge by starting from any point in his mind and proceeding in the appropriate direction. Dante is able to surmount this challenge in his manuscript by densely linking disparate passages in all three canticles of the *Commedia* via the use of repeating imagery and language which often play heavily on devices of assonance and dissonance to signal their associations. The result is a text whose ‘links’ produce a shuffling matrix of knowledge which remains both a “construction process and finished structure” (Carruthers *Book of Memory* 72).

The organization and detail of a medieval student’s memory emanated from a learner’s ability to ‘consume’ texts and experiences and utilize them creatively. Students performed a type of reading quite different from the hermeneutical process undertaken by modern students who learn ‘by the book.’ In the first place, students undertook *lectio*, a reading of the grammar and allegory in a work which was essentially informative and similar to the type of reading and research modern students pursue. However, this was only a preliminary step. The most important phase of the medieval student’s learning process was *meditatio*, “the activities of digestive meditation [which] constitute the ethical activity of making one’s reading one’s own” (Carruthers *Book of Memory* 165). The result was a “hermeneutical dialogue” (169) between reader and work, a process by which a work was made part of a student’s own experience and absorbed into his memory schema, and one which stands in violation of the “modern notion of ‘accuracy,’ ‘objective scholarship,’ and ‘the integrity of the text’” (164).

In *De Trinitate*, Augustine espouses making a text one’s own by populating the places of memory with “hooks.” These ‘hooks’ took the form of *imagines agens*, images in action and acting upon other things. In objects like Hugh’s arc and Dante’s poem, “cross-referential, associational links among elements in such schemes produces random-access memory and sets
of patterns or foundations upon which to construct any number of additional collations and concordances” (Carruthers *Craft of Thought* 16). Memory’s success in this process was “dependent on the recollector’s skill in forming memory images ... ‘rich’ in associations, as ‘iconic’ as possible” (Carruthers *Book of Memory* 60).

Visual coding of this sort, “like writing, allows the memory to be organized securely for accurate recollection of a sort that permits not just reduplication of the original material, but sorting, analysis, and mixing as well, genuine learning, in short, rather than simple repetition. A thought thus became a sort of “small-scale composition” (34), a “scene” that included personal recollections, common knowledge and the objects of one’s education. In this light, it is easier to understand why, throughout the *Commedia*, people and places from Dante’s life share the same ‘scenes’ as major figures from the history and literature which comprised his education. Personalizing bits of information in this manner made them more affective, retrievable and useful because one’s object of study became not just an end in itself, but a means for further learning.

A high degree of visual precision was required for the generation of *imagines agens* because, as Hugh of St. Victor points out, “each mnemonic background or scene is constituted by the sweep of one such mental gaze, and the individual mnemonic clues within each scene cannot be more in number or complexity than what one can distinguish clearly in one look at the memory” (qtd. in Carruthers *Craft of Thought* 63). Dante demonstrates his understanding of these mnemonic rules when Vergil states, at the beginning of *Inferno* XI prior to the descent into the lower bolgia,

“My son, within these rocks,” he then began to say,

“Are three smaller circles descending step by step, like those you are leaving. All are full of cursed spirits; but so that later the mere sight of them may suffice, hear how they are constricted and why.” (L.16-21)
Vergil himself is an image of Dante’s education which the poet has personalized and ‘turned’ to the ends of his own discourse. Carruthers claims that Dante saves Vergil from the fantastic lengths which medieval legends had taken the image of the Latin poet, including stories of his ability to fly and perform miracles, and utilizes him as ‘an old brick’ in the ‘new wall’ of the Florentine’s self-expression in the *Commedia*. Dante’s re-made Vergil is only one example of the many occasions in the *Commedia* “where we see Dante the poet enclosing and incorporating other kinds of fictions in order to turn them to his own ends” (MacDonald 71), and Barilli points out that it is the Florentine’s masterful manipulation of these disparate *fabulae*-fictions - that enables him to successfully build a “bridge” between the corporeal and the intellectual, between the sensual and the spiritual, between rhetoric and poetics.

The *imagines agens* of the *Commedia* provide what Yates has called “emotional impetus” to Dante’s journey to re-collect the contents of his memory by their personal idiosyncracy and their strangeness (16). In the *Commedia*, Dante’s mind and the minds of readers are “‘hooked up’ and ‘hooked in’ to the associational play of the *imagines agens* based on the elementary principles of mnemonics: 1. Surprise and strangeness, 2. Exaggeration, 3. Orderliness, 4. Copiousness 5. Brevity, 6. Similarity, 7. Opposition, 8. Contrast. Following these rules allows for substitution via images that “compresses large amounts of material into informationally rich single markers” (Carruthers *Book of Memory* 84) able to stimulate meditation and learning. Eco calls this mnemonic method, “the mechanism which permits epiphanies, where a thing becomes a living symbol of something else, and creates a continuous web of references” (*Chaosmos* 7).

Carruthers, Yates and McLuhan have also noted the “synaesthetic” quality of the mnemonic places, as well as scenes presented in the various areas of the *Commedia*, especially *Inferno*, wherein all bodily senses are involved in the stimulation of memory to create “a fully realized sensory experience that includes recreated sounds ... , and taste ..., and odor ..., and touch” (Carruthers *Craft of Thought* 148) as well as different intensities of light and shading and the entire range of one’s emotions.
As mentioned in the early portion of this chapter, Friedreich Nietzsche argued that searingly painful, emotionally laden memories are the only ones we retain and learn from. Derrida, Ulmer and other theorists have pressed over and again for the use of one’s autobiography, and the emotions remembrance evokes, in the student’s interaction with the object of research. Freud’s psychoanalysis was developed to uncover the latent emotions driving the imagery of his subject’s dreams. Indeed, neuropsychology and medieval memoria agree that memory images of whatever sort require emotional coloring to be laid down strongly for secure recovering and these memories do not exist discretely, but in “circuits” or networks (Carruthers *The Book and the Body* 10).

The aforementioned philosophical and scientific trends attach to a long history of emotion’s presence in the intellectual and imaginative enterprise. In the oral culture of the *Odyssey*, we repeatedly see Odysseus weeping, “hooking in” to his emotions for the purposes of memory recall, before delivering a long monologue recounting his travels. Dante incorporates every emotion and important people and places from his life associated with those emotions, from despair and pity to euphoric joy, to make the images of his *Commedia* that much more memorable, and therefore useful. Like Nietzsche, medieval teachers and students understood memory training to require bodily affliction since, as Carruthers discusses in Frese and O’Keefe’s short but fascinating collection of essays, “trauma (either as bodily or mental pain) was understood to ingrain the material to be remembered in the mind. Such affliction, figured as anxiety or vexation made the body quite literally the site for memory” (*The Book and the Body* xii). She notes that “medieval people saw it as necessary to impress (violently) memories upon the brain those all-important rote-retained ‘habits’ of their culture” (2). The textualized body was thus a “book of memory” upon which the violence of writing - where surfaces are pounded, scraped, etched, and bound to contain thoughts as texts - was programatically enacted to produce stable memories (xiii).

This trope, of bodies as texts violently inscribed upon by the discourses organizing and driving a culture, appears frequently throughout Chaucer’s work, particularly poems like *Troilus*
and Criseyde, and will be discussed in greater detail in the next chapter. Carruthers points out that the Latin root for inscription, *scribere*, translates as “to incise, to cut” and the premise of *compunctio cordis*, which guided meditative, emotional mnemonics, stems from the Latin root, *pungo, punctus*, which translates as “a piercing, a puncture” (Carruthers 2). To enact *compunctio cordis* (compelling of the heart) for the purposes of recalling and using the store of one’s memory, was a process of piercing, goading and vexing one’s feelings “through affective recreation of ‘excessive images’” (2) which were “punctuated” by particular emotions.

The crucial aspect of this sort of training, which illuminates its affinities with Nietsche’s ideas about “ruminative” learning while distancing it from Freud’s dream-work and which makes this style of academic meditation invaluable to the goals of this dissertation, is that *intentio* (aiming) and *converto* (tuning, turning) executed upon images in the mind’s eye “assume a degree of conscious control over emotion foreign to modern psychologies which are predicated on the notion that emotion is part of an uncontrollable ‘unconscious’” (Carruthers *The Book and the Body* 20).

**Horizons: Looking Ahead**

Towards the end of *The Book of Memory*, Carruthers writes,

modern literary theory, when applied directly to medieval literature, has tended to obscure the very medievalness of that literature, and to present Dante, Chaucer and the French writers of romance and fabliaux, as crypto-moderns, subverters and deconstructors of tradition in an anti-establishment mode. Understanding the fundamental role of *memoria* ... redresses the imbalance in this view. For deconstruction ... is at the heart of meditation and the assimilation of literature. Indeteriminacy of meaning is the very character of recollective gathering. Emotions are the matrix of memory impressions and so - of course - desire moves intellect, as all learning is based in remembering. These themes ... are not socially subversive ... in medieval literature, they are the tradition itself. (259)

In addition to the post-modern aesthetics mentioned above, Manovitch has also pointed out several other aesthetics and habits of the emerging electronic environment, such as modularity, individual customization over mass standardization, variability, interactivity, flexibility, the synthesis of representation and information, multi-media, virtual spaces, and hybrid texts, all of
which correspond to the major features of the medieval memory training discussed in this dissertation. Ulmer notes in *Teletheory*,

> the most extraordinary feature of mnemonics and most relevant for academic discourse in the age of television is that whatever a medieval student was thinking about, learning - law, virtues and vices, theology, the entire curriculum - it was done by a walk through the childhood home, or along the streets of a hometown, or a great public building, finding in each room or next to each familiar location an image, either extreme aberration or intimately familiar. (136)

Ulmer characterizes the new dimension of textuality present in electronic forms of communication as “secondary mnemonics” (*Teletheory* 191), and argues it is important for the humanities to “replace the logic governing argumentative writing with associational networks” related to those found in classical and medieval memory arts which have the potential to serve as a more practical type of ‘interface’ for computer technology as opposed to the “devices of the book apparatus ... themselves intended as the ‘interface’ for print technology” (*Heuretics* 18).

Ulmer expands upon this idea in *Heuretics* to include hypermedia’s potential contribution to the development of an electronic rhetoric which features a re-conceptualized notion of the importance of the knower’s memory over a body of knowledge to be memorized. Towards the end of *Heuretics* he states,

> Hypermedia provides equipment capable of of bringing the three elements [of artificial memory: familiar settings, familiar figures, specialized knowledge of one’s discipline] together, and mnemonics offers a relay for solving the interface problem: the electronic citizen may negotiate the environment of cyberspace the same way an orator memorized immense quantities of written material, or the way an actor learns a play. (193)

Henceforth, I shall argue that the creative, generative *ars memoria* observed in medieval manuscripts like the *Commedia* shares several qualities with the aesthetics and habits of hypermedia, and can therefore serve as a useful relay for the creation of electronically-oriented pedagogies. This dissertation and future work will attempt to combine the principles of the *ars memoria*, exhibited in texts like Dante’s *Commedia*, with the computer’s potential to serve as
part of the new “memory machine” with which a student can actually perform an inventive convergence of collective and individual resources and better “map the terrain between sociality and subjectivity” (Ulmer, *Heuretics*, 138) from within the classroom.

This chapter has attempted to lay out the body of my interests and goals in this dissertation project. The following chapters will explore the features of this argument already discussed in this chapter in greater detail.

Because they were the first major departures from the use of the printed word as the major medium of information storage and transmission in the 19th Century, the resurgent importance of visual registers of information in modern communicative acts will be introduced in Chapter Two, “The Image” as the first components in the correspondences between electronic culture and medieval memory I intend to discuss in this dissertation. I will point out the rise to prominence in electronic age of the photograph, the moving image, the digital still and multimedia and cite critics like Ulmer who argue that the status of the image as an interface necessitates a place for it in new rhetorics. To answer this need I will refer to the medieval notion of the *imagines agens*, images in action and acting upon other things, which functioned as rhetorical and informational “hooks” in the *machina memorialis*. I will chart the methods by which these images were made a “rich” in associations and “iconic” as possible and how visual coding of this sort enabled not just reduplication, but sorting, analysis and mixing, i.e., genuine learning rather than repetition whereby thought itself became a small-scale composition using “old bricks” in a “new wall.

Chapter Three, “Virtual Space,” will begin by citing Manovitch’s and other critics’ discussion of the immersion into virtual spaces as the new paradigm for information storage and gathering. I will be sure to note Manovitch’s excellent discussion of the collapse between information and representation in the database, cyberspace, the world wide web, and virtual environments like games and the differences these types of interfaces represent as opposed to information storage and retrieval in a print apparatus. To account for and accommodate these differences into a redeveloping rhetorical canon, Chapter Three’s discussion will turn to the
concept of the “memory palace” as a relay for attempts at overcoming these differences and incorporating them into electronically-oriented pedagogy and research. I will discuss in detail the rhetorical uses of mnemonic “places” (loci) within three-dimensional spaces in the learner’s thinking mind, fundamental to the learning process of the middle ages, serving as organizational maps, “gathering places,” and points of departure for discourse. I will note medieval examples ranging from St. Augustine, to Hugh of St.Victor and Dante Alighieri, who rendered the contents of their minds in virtual spaces while making use of all the bodily senses, and the way such an ordering (ordinatio) of the “places” motivates argument and memory by allowing for navigation through the contents of one’s mind.

Chapter Four, “Interactivity and Modularity,” opens by discussing the increasingly interactive quality of hyperlinks, hypermedia, games, entertainment, multi-user domains, chat rooms list serves, multidisciplinary projects and online publications, as well as the need for users to organize the increasingly rapid and fragmented transmission of information in these environments. I will again note Manovitch and his illumination of the presence of post-modern operations such as copy, cut, paste, search, and the tendency toward customization over mass standardization. Chapter Four will also point out the shift in the master-slave relation between texts and their users in examples like the DJ and Napster which are occurring in an increasingly “authorless” environment. Furthermore, I will discuss the emergence of a new cultural economy coeval with these developments wherein producers define the basic structure of an object and release examples, but users build their own versions. In order to address the need for a renovated humanities curriculum to incorporate these transformations into a rejuvenated rhetorical canon, I will turn to the interactive quality of medieval meditatio and memoria as relays. This chapter will cover the ways in which textual and memorial habits of the middle ages encourage a user to “make a reading one’s own” by “consuming” and re-building or re-making a text for one’s own purposes. Chapter Four will note the highly interactive quality of the “hermeneutical dialogue” between the reader and a work which lead to incredibly creative reading/writing processes. For examples, this chapter will present the poiesis of poets like Dante which, in using these highly
interactive mnemonics for composition often involving the appropriation of another persona, produced discourse out of operations similar to those listed by Manovitch and others as central to postmodern acts within electronic media.

Chapter Four will also address “Modularity,” and will provide coverage of this aspect of electracy becoming increasingly important to research and learning, namely, modularity, the collection of discrete samples into large-scale objects quickly available for use and infinitely variable via periodic updates. I shall point out the shifting, flexible nature of the world wide web, online gaming environments, multi-user domains and electronic research and art. Elements within these electronic objects retain their individual identity and can be “wired” into more than one object. The subject who interacts with these modular environments becomes a “decentered” assemblage, a multiple self that changes in response to different social situations. As a relay for my attempt to apprehend the modular condition for the sake of electronic research and education, the chapter will cite Mary Carruthers discussion of memoria in the middle ages as a “shuffling matrix” of things posited into a random-access scheme which remains both a “construction project and finished structure.” As examples of this condition as I have encountered it in medieval scholasticism and art, I will discuss Hugh of St. Victor’s arca sapientiae, a learning and information storage device which the author conceived of as a “shuffling matrix” of things (res). Furthermore, I shall note the ability of poets like Dante, Boccaccio and Chaucer to “wire” different elements of a work into non-linear webs of associations with other texts. In particular, I will focus on the “open” nature of the works Chaucer, manuscripts which the poet continually returned to and “updated” for purposes of expansion and revision.

Chapter Five, “Conclusion,” will note again the correspondences between the aspects of electracy and the major features of medieval memory discussed in this dissertation. The chapter will be concerned with speculations on how humanities research and pedagogy might rehabilitate the creative, generative features of the machina memoria as demonstrated by figures like Dante, and combine these premises with the moving images, virtual spaces, interactivity and
modularity of hypermedia in order to produce a new sort of heuristic learning that expands traditional hermeneutics and creates a learning environment suitable for the electronic age.
CHAPTER 2
THE IMAGE

Introduction: The Age of the Image

Several corresponding habits of medieval and electronic culture important to the re-designing of humanities pedagogy in the Twenty-First Century will be the focus of this dissertation project. This chapter will be concerned with the importance of the image to identities (“habit” as costume), communication habits (“habit” as repeated behavior patterns) and habitations (“habits” as public/private spaces) now dominating what is variously called “the digital age,” “electracy,” “society of the spectacle” by critics studying the cultural and technological transformations taking place around us. In particular, this chapter will examine how the aforementioned “habits” oriented around the circulation of images correspond to the “society of the spectacle” noted by medievalists in the rhetorically charged art, architecture and scholarship of the Middle Ages. The reliance of medieval mnemonics, rhetoric, education, religion, and art on an associative, networked image-logic represents a discourse crucial to efforts at using the medieval memory machine as a relay for the creation of a rhetorical method suited to the digital age.

As noted in Chapter One, the research and commentary by scholars in the fields of cultural studies, post-modernism, medieval and film studies, as well as the unavoidable crush of everyday experience in our own lives, has made clear that we are immersed in an age where images found in photographs, illustrations, comics, cinema, video, computer graphics and games have all become essential components of discourse (Bakutman 9). W.J.T. Mitchell calls this “pictorial turn” a “post-linguistic, post-semiotic rediscovery of the picture as a complex interplay between visuality, apparatus, institutions, discourse” (16).

Several other scholars have also examined from various perspectives the increasing importance of images in America and worldwide. Daniel Boorstin claims that the “graphic revolution” (13) of the 19th and 20th Centuries, which has witnessed considerable increase in “the ability to make, preserve, transmit, and disseminate precise images” (13), has made “images
- however planned or contrived, or distorted - more vivid, more attractive, more impressive and more persuasive than reality itself” (36). In Boorstin’s words, “fact or fantasy, the image becomes the thing. Its very purpose is to overshadow reality. American life becomes a showcase for images” (197).

Boorstin labels these showcases “pseudo-events,” but cautions us not to dismiss the cultural transformations wrought by the image’s increased importance as simply a “growing superficiality.” Instead, these transformations “express a world where the image, more interesting than its original, has itself become the original. The shadow has become the substance. Advertising men, industrial designers, and packaging engineers are not deceivers of the public. They are simple acolytes of the image, not only because the image sells, but also because the image is what people want to buy” (204).

Guy Debord, in his oft-mentioned short work, *The Society of the Spectacle*, utilizes the term, “spectacle,” to discuss these “modern conditions of production” wherein “everything directly lived recedes into representation” (43). Debord claims “spectacle presents itself simultaneously as society” and emphasizes that spectacle is “not a collection of images; it is a social relation between people that is mediated by images.” Through news, propaganda, advertising, entertainment, the spectacle “represents the dominant model of life” (45).

For Debord, the result of spectacle’s hegemony is a “fetishism of commodity”: the real world is replaced by a selection of images which are projected above it, yet which at the same time succeed in making themselves regarded as the epitome of reality (54), an effect which Scott Bakutman calls “hallucination” (89). The appeal of this hallucination, or “simulacrum,” creates a culture in which, according to Gregory Ulmer, the past is modified, becoming a “vast collection of images, a multitudinous, photographic simulacrum whose practice is informed by the emotion of nostalgia” (11).

Marshall McLuhan’s work on modern communications media, for all the controversy and disagreement it has generated, has nevertheless spurred a flood of research built around what has come to be called “medium theory,” the study of media, that only increases in scope and volume
as the humanities increasingly come to recognize the importance of apprehending and making use of the ever-evolving technologies of communication. In particular, a great deal of scholarship has emerged since the middle of the twentieth century which evinces a concern with the growing influence of film, television and now computers, three media which represent important advances beyond the technology of print and even the still photograph. In *Picture Theory*, W.J.T. Mitchell stresses that “the difference between a culture of reading and a culture of spectatorship, for instance, is not only a formal issue; it has implications for the very forms that sociability and subjectivity take, for the kinds of individuals and institutions formed by a culture” (3).

One of the more recent and engaging studies of the habits and habitations emerging in science-fiction literature and film, Scott Bakutman’s *Terminal Identity*, notes tellingly, “Technology always creates a crisis for culture, and the technologies of the 20th Century have at once been the most liberating and the most repressive in history, evoking sublime terror and sublime euphoria in equal measure” (4). Scholars like Bakutman are continually fascinated and troubled by the power of modern media to generate within communities a reaction akin to the medieval sense of melancholia - brilliant imaginative intellection and paralyzing despair stemming from one’s obsessive contemplation of a desired object, believed to be the driving force behind both the creative and self-destructive capacity in human beings.

In particular, cultural studies scholars, medium theorists and postmodernists are worried that these alluring, effective, and pervasive technologies are creating a passive relation between the human subject and the culture of image and spectacle within which we circulate. In their eyes, viewers are reduced to the level of simple mass consumers of media who do not find sites of resistance and self-knowledge inside these technologies. While evidence points to several new public spaces in electronic culture which do provide for individuality, creativity, dialogue and experimentation, the sad fact remains that humanities pedagogy in the 21st century college classroom is still seeking a language and a method for exploring and understanding one’s subjectivity in the electronic environment.
Bakutman notes that film and television represent important departures from the discrete, (and, until computer programs allowed for the kinds of deformations of photos seen in avant garde art and film) immutable text of the photograph, and are more representative of the spatiotemporal malleability encountered in digital age technology (108). Motion is an explicit and crucial element of televisual and filmic texts. The sweep of landscapes, and panoramas of often violent action in the pages of novels, which could not be convincingly transferred to the stage, have been a cornerstone of film making and television from their beginnings, and have continued to remain a consistent part of not only these sorts of texts, but computer art and games as well.

Daniel Boorstin compares film’s impact to that of 15th Century printing and claims the comparison is apt “because printing and film share the aspiration to be universal forms - to expand beyond community and region until they are national, ultimately global in scope” (157). The combination of sound and moving image makes film even more “seductive, brilliant and various” (Boorstin 158) than print and photography. And, “like all art, it distorts the images it reflects according to the cultural and individual biases of its creators and the special imperatives of its medium. It thus changes - has changed - society’s image of itself, and, by a kind of feedback loop, the changing self-image of society changes the image in the mirror. The influences are continuous and reciprocal.” Boorstin continues, stating, “like printing, film has thus created attitudes and modes of self-awareness at the same time that it has expressed them. These attitudes or modes of self-awareness are now part of the structure of modern consciousness just as, by the 17th Century, the modes of awareness implicit in the medium of print had become part of European consciousness” (158).

O.B. Hardison extends this historically-oriented analysis of modern communication and entertainment to the Middle Ages, noting that modern media can be defined as a work of fancy, to borrow a term from Samuel T. Coleridge, a work of aggregation and association, an assembly of fictives and definites. This said, it should immediately be added that the completed film can, and usually does, give the impression of being a continuous whole. In this respect it resembles the communal art of pre-literate
societies. Ballads, folk-epics and cathedrals are normally the work of innumerable anonymous hands; yet they seem unified to the modern reader or viewer. (Entering the Maze 186)

Hardison continues his comparison of the modern and the medieval by applying the language of modern mass media to liturgy, adding,

the mass medium of the Middle Ages was liturgy, which communicated to the illiterate masses through music, vestments, ceremony, and ritual. It was necessarily formulaic because, like a drama, it had to be recreated each time it was celebrated. Like liturgy, film transcends barriers of geography, and like it, film has a deep mass appeal that does not depend on literacy. Film is more various than liturgy, but underlying its dazzling variety are there not formulas that are as rigid in popular cinema as the formulas of medieval mass? (Entering the Maze 197)

Hardison also attributes a “basic grammar” to film oriented around the manipulation of images via “cut, fade, and dissolve, and long shot, medium shot, and closeup; and the rhetoric of film includes voice-over, musical continuo, unusual camera angles, trick photography, and special sound and lighting effects” (202). This chapter will note how the medieval “society of the spectacle” traceable in the art, education and architecture of that period possessed a “basic grammar” comprised of strikingly similar visual elements that should prove useful to the development of an electric rhetoric.

Scholars have long noted the power of the image. Boorstin concurs with Ulmer’s notion that film and television are propelled by emotion motivated by recognition and nostalgia. Boorstin feels that “popular cinema cooperates with desire for reverie rather than opposing it” (168). Ulmer feels that television and film in particular, capitalize on emotion’s function as “a guide to the location of myths (ideologies) informing the cultural reserve of an individual” (Teletheory 11).

The compelling power of moving pictures has been irresistible. In his discussion of early cinema, Lev Manovitch claims, “film images would soothe movie audiences, who were facing an increasingly dense information environment outside the theater, an environment that no longer could be adequately handled by their own sampling and data processing systems (i.e. their
brains). Periodic trips into the dark relaxation chambers of movie theaters became a routine survival technique for the subjects of modern society” (23). William S. Burroughs is far more blunt in his assessment of the ever-increasing presence and power of the culture of the image and calls it “a form of junk, an addictive substance that controls its user” (as qtd. in Bakutman 75).

Boorstin has developed a “language of the image” which he feels is representative of the disempowering allure wielded by modern technologies of communication and entertainment. In the first place, the image is synthetic: the image is planned and created to serve a purpose, make an impression like a trademark or brand name, for example. The trademark is a legally protected set of letters, a picture, or design identifying a particular product-experience, someone has interest in its use and it is owned and produced by specialists. The trademark represents the studiously crafted personality profile of an individual, institution, corporation, product of service-value and can be caricatured, synthesized, doctored, repaired, refurbished, improved, multiplied.

In his examination of the “language of the image” Ulmer claims that every object in the electronic environment “is available, capable of being separated from its original justification or context and remotivated as part of a new discourse” (Teletteory 92). The synthetic, flexible quality of images is also massively present in television and film. Ulmer further notes in Teletteory, “television organizes information narratively - ordering the interaction of sound and image with oral and pop culture forms, extending simple forms like the anecdote, joke, proverb, riddle, and legend into new functions of classification and evaluation” (ix).

Secondly, according to Boorstin, the image must be believable - not ‘true,’ but nevertheless accepted as a ‘reality’ by its audience. In Terminal Identity, Scott Bakutman studies several books and films which effect “a deconstruction of a culture profoundly engaged with images; a culture which allows images to construct a whole and reassuring - but entirely false - image of itself” (63). Boorstin characterizes the manipulation of images on television as carefully selected, grouped and staged “pseudo-events” (The Image 210), contrived occurrences, like those of P.T. Barnum’s outrageous public hoaxes, which take the place of “truth.”
In a statement which is crucial to the correspondence I am establishing between the image-oriented cultures of present day electracy and the middle ages, and one upon which I will expand later in this chapter, Boorstin’s comments on a modern culture of images raise, like Hardison’s, interesting and useful connections to the ‘society of the spectacle’ of the Middle Ages. Boorstin notes, “In this new world where almost anything can be true, the socially rewarded art is that of making things seem true. It is the art not of discovery, but of invention [my emphasis]. Finding a fact is easy; making a fact ‘believed’ is slightly more difficult” (211).

Most troubling for Boorstin and many others, our relation to the image is passive: producers and consumers “fit into” the image, become the likeness of the image, “conform” with an image. The conformist makes it a habit to fit with images around him. In *Picture Theory*, W.J.T. Mitchell notes, “images, like histories and technologies, are our creations, yet also commonly thought to be ‘out of our control’ - or at least out of ‘someone’s’ control, the question of agency and power being central to the way images work” (6). Ulmer claims the “subject of knowledge is a voyeur,” in thrall to the “pleasure of recognition by which a text reproduces in the spectator the dominant ideology of the society” (*Teletheory* 7).

Mitchell concurs, calling spectacle “the ideological form of pictorial power; surveillance [an increasingly prominent habit of both person to person interaction, law enforcement, commerce, and entertainment on the internet and television, causing intense overlap of the discourses dominated by all four] is its bureaucratic, managerial, and disciplinary form” (327). Mitchell is convinced that the “badness” of television as discussed by medium theorists and cultural studies, “has something to do with the passivity and fixation of the spectator” (2).

Debord claims the “passive acceptance of spectacle is already effectively imposed by its monopoly of appearances,” (46) its manner of appearing without allowing any reply. This monopoly of the image and passivity of the viewer create, for Boorstin, the paradox of the culture of the image. He writes,

in 19th Century America the most extreme modernism held that man was made by his environment. In 20th Century America, without abandoning the belief that we are made
by our environment, we also believe our environment can be made almost wholly by us. This is the appealing contradiction at the heart of our passion for pseudo-events: for made news, synthetic heroes, prefabricated tourist attractions, homogenized interchangeable forms of art and literature (where there are no “originals,” but only the shadows we make of other shadows). We believe we can fill our experience with new-fangled content. Almost everything we see and hear and do persuades us that this power is ours. The life in America which I have described is a spectator sport in which we ourselves make the props and are the sole performers. (182)

In this culture of simulacra, shadows of other shadows, “what we regard as ‘reality’ stands revealed as a construction - a provisional and malleable alignment of data” (Bakutman 30), and Debord notes, “the lack of general historical life also means that individual life as yet has no history. The pseudo-events that vie for attention in spectacular dramatizations have not been lived by those who are informed about them; and in any case they are soon forgotten due to their increasingly frenetic replacement at every pulsation of the spectacular machinery” (73). Debord continues, stating, “this individual experience of a disconnected everyday life remains without language, without concepts, and without critical access to its own past which has nowhere been recorded. Uncommunicated, misunderstood and forgotten, it is smothered by the spectacle’s false memory of the unmemorable” (74).

**Habitation: A Mediascape of Images**

Film now shares, and now often circulates within, this “mediascape” (Bakutman 41) of images created by several types of media. Audio recordings have been almost as important to transformations in information and entertainment as the moving pictures of film and television. Bakutman claims the comic-book medium is uniquely suited to depiction of spectacular society with its conjunction of image, color, text and typography which is exploited with continual variation by its producers (59). Post-modern architecture continues to reflect its environment with a “celebration of hybrid (rather than univocal) expression, complexity (rather than linearity), eclecticism (rather than historicized homogeneity) and variable space with surprises” (Bakutman 60). O.B. Hardison adds to this list newspaper layouts, television programming, and
the web with their shared qualities of discontinuity, fragmentation, motion, and collage
(Disappearing Through the Skylight 178).

The most important addition by far to the “mediascape” of electronic culture is computer technology. Having absorbed and adapted visual art, audio, movies and games into its own set of technological and cultural transformations, computer technology has also introduced the world wide web, with its attendant explosion of new public spaces and discourses, as well as computer-assisted design programs for a variety of fields and purposes.

Hardison points out that computer art “is holistic in its simultaneous use of image, sound, and text, and it is often kinetic. It moves and changes. It reaches out to surround and absorb the consumer, creating an artificial reality that forces the consumer to confront the increasing irrelevance in modern culture of the distinction between the real, in the sense of that which occurs naturally, and the artificial, in the sense of that which is a human artifact” (21). Hardison adds that film, television and computer technology utilize “expression in metaphors, paradoxes, contradictions and abstractions rather than languages that ‘mean’ in the traditional way - in assertions that are apparently incoherent or collages using fragments of the old to create enigmatic symbols of the new” (21).

Later in Disappearing Through the Skylight, Hardison discusses the highly representational character of Computer Assisted Design Programs (CADS) already used in several professional fields and college programs such as architecture and graphic design. Hardison states, “Frequently they begin with wire frame images that are later converted to solid 3-D representations. These images can be rotated, set in motion and continuously modified” and things that could not otherwise be seen, such as hypercubes and 4-D fractal shapes can now be rendered by a viewer (248). Manovitch calls programming like this and the latest computer-generated special effects now seen in film and games as “digital compositing,” the creation of moving images of nonexistent worlds (153). Bakutman also notes the increased power and seductiveness of the digital image, writing, “the precision of the computer-generated image inscribes a precision of perspective which eludes the ordinary eye” (217).
The nature of the subject and subjectivity, always changing, especially since the advent of the electronic age in the course of the 19th Century, has only increased its rate of change since the arrival of radio, film and, most recently, computer technology. Bakutman deploys the term, “terminal identity,” to describe the new formations of subjectivity and its discourses emerging in new media like the internet. He combines Baudrillard’s sense of the subject as a “terminal of multiple networks” (Bakutman 2) wherein “media are no longer the extension of man; man has instead become an extension of them” (73), with Burroughs’ notion of “terminal identity: the unmistakably doubled articulation in which we find both the end of the subject and a new subjectivity constructed at the computer station or television screen” (9).

The “terminal identity” of American culture now taking shape only heightens the experience of Feyerabend’s idea that “like every other object, man is an exchange station of influences rather than a unique source of action, an ‘I’” (qtd in Ulmer, Teletheory 27). Baudrillard considers a theater/props analogy like Boorstin’s quoted above to be insufficient for describing the electronic subject and states that all of us, in our varied capacities as scholars, students, employees, consumers, etc.,

are at the controls of a micro-satellite, in orbit, living no longer as an actor or dramaturge, but as a terminal of multiple networks. Television is still the most direct pre-figuration of this. But today is the very space of habitation that is conceived as both receiver and distributor, as the space of both reception operations, the control screen and terminal which as such may be endowed with telematic power. (Bakutman 86)

Computer technology has expanded and intensified the “audience’s” change from “spectator to participant, passive receiver to message sender” (Bakutman 65). Eric Matlow, in his essay, “Women, Computers and a Sense of Self,” notes, “computer interface presents us with an interface which substitutes ‘iconic representations’ of reality for the real” (172). Lev Manovitch undertakes an excellent discussion of the subject’s new relationship to these “iconic representations of reality,” stating, “the image acquires the new role of an interface (imagemap,
the image interface functions as a portal into another world, like an icon in the middle ages or a mirror in modern literature and cinema (290).

These “interactive interfaces” turn the image from something we passively observe to “something we expect to enter rather than stay on the surface” (Manovitch 180). New information and entertainment media “turn most images into image-interfaces and image-instruments” that the user actively engages (Manovitch 183), and Manovitch argues compellingly that “information access is no longer just a key term of work, but also a new key category of culture. Accordingly, it demands that we deal with it theoretically, aesthetically, and symbolically” (217).

Kathleen Welch concurs, pointing out in Electric Rhetoric, that students exposed to the “screen rhetoric” of Bakutman’s “terminal identity” are “literate in new ways” (4). It is our task in the humanities to provide students with methods of critical thinking that raise their level of self-awareness and understanding and help them exploit and not be exploited by the potential of the new “literacy” Welch and Ulmer outline. Unfortunately, because of the humanities’ current lag in apprehending the new state of the subject and subject-formation, scholars and pedagogues have reached what O.B. Hardison calls a “horizon of invisibility” where our “inherited languages are inadequate” (Disappearing Through the Skylight 21).

Boorstin laments the lack of self-discovery that should be facilitated by the dynamic new communication, information and entertainment technologies which have emerged over the past two centuries. For the present user of the new media image interface, because of the monopoly that television and film have had over the dissemination of images and the passive habits of their viewership, the post-modern subject resembles not the medieval traveler, or pilgrim, who actively engages his or her journey and the objects and places encountered within it, but the modern tourist, isolated from and passively viewing a disconnected, decontextualized landscape (The Image 94), or rather, mediascape.
The urgent need for the humanities to produce a “narration of new technological modes of being in the world” (Bakutman 6) comes at the same time the humanities disciplines are facing a dire crisis of identity at all levels of the curriculum. O.B. Hardison is unremittingly bleak in his assessment of the humanities’ fall to such a low status within the American educational system, especially at the college and university level. He observes, “at the early levels of education the idea of the useful is identical with the idea of humanity,” but continues, writing,

Literacy is both a useful skill and the precondition for reading significant texts. At more advanced levels, a divergence occurs. One area of the curriculum is dedicated to the reading and interpretation of culture texts, and its subjects are called humanities. Other areas devoted to useful information and skills, and their subjects are called sciences and social sciences and professions; they can be summarized under the general label “technique.” As the technique becomes more complex, it becomes more demanding. The natural divergence in education between technique and the idea of humanity is thus intensified until it becomes a radical separation. The humanities cease to be the foundation of the curriculum and become one of its parts. (*Entering the Maze* 118)

Hardison’s verdict is that the humanities disciplines finds themselves in a system dominated by the idea of the useful to which they cannot demonstrate their utility.

Whereas in the ancient and medieval curricula the humanities served the aim of providing students with sound character, broad knowledge of human affairs and a well-developed ability to communicate (Hardison 123), by being simultaneously practical (useful), ethical (ideologically self-conscious), and aesthetic (encouraging progressive discovery through experience) (122), the strength of modern humanities education and scholarship, built around the familiar foundations of the seminar, essay, journal and book, “reflects its scrupulous fidelity of humanisitic scholarship to its tradition and its weakness because they are often incomprehensible and hence seem ridiculous or tedious or ‘elitist’ to the general public” (Hardison 129). Centuries of constant exposure to the structure of knowledge expressed by arrangement of books, reinforces assumptions about that structure encouraged by agencies outside the library, including the structure of course in official curricula and the structure of academic
departments and government agencies. If no assumptions exist regarding an area of thought, the library tends to create them by imposing patterns of association on the user’s mind. A classification system thus encourages the compartmentalizations of thought within the standard classifications. It makes orthodoxy easy and thought outside of compartmentalization extremely difficult. The same tool that creates knowledge may inhibit those unorthodox patterns of thought that enlarge knowledge. (Hardison 139)

Even in the 1960's, Marshall McLuhan recognized the difficulty the humanities would have in studying and incorporating electronic media because of the long influence of the print apparatus. He writes in *The Gutenberg Galaxy*,

> when we see the reason for the total failure of [Schramm, Lyle, and Parker] to get in touch with television’s themes, we can understand why in the Sixteenth Century, men had no clue to the nature and effects of the printed word. Schramm, et al, make no analysis of the television image. They assume that apart from the ‘program’ or ‘content,’ television is a ‘neutral’ medium like any other - they like Quixote believe that print is the criterion of ‘reality’ and non-print media are ‘fantasy’-oriented.” (177)

Walter Ong’s *Ramus* discusses in depth the efforts of influential scholars like Rudolph Agricola and Peter Ramus to capitalize on the technology of the printing press to produce a schema for understanding various concepts in a “more visualist, observational, ‘objective,’ mechanistic way” (115). The printing press was amenable to Ramus’ and Agricola’s ideas for “simplified philosophy’ whereby any and all reality could be explained in terms of simple analogy with mechanical constructs” (Ong 97).

Ong characterizes the printing press as the “first assembly line” which had “assembled not tools, but a pattern of words, a pattern for things in the mind. In a parallel maneuver Ramus organizes in an observational field not the external world but the ‘contents’ of consciousness” (195) with the result that “language is reduced to spatial relationships” (85) and “allegory disappears in a representation of human thought processes which are developed by the generalization of print and appear self-evident” (113) and students are left “with no real understanding of the semantic importance of metaphorical or of any similar processes” (274).
Ong’s litany of the desecration wrought upon language by the institutionalization and domination of the printed word reveals the extent to which ‘learning by the book’ has produced a passive reading subject and passive learning process, leaving students ill-equipped to engage the discourses of hypermedia. Ong notes that print enhances the illusion of a “one-to-one correlation between terms and things” opposing “divergent meanings” (203).

In the interest of ‘simplification’ and ‘generalization,’ Ramism “reserve[d] only elocution and pronunciation from rhetoric” (270), and the ancient *ars* “no longer persisted as a course in general culture in the ancient sense” (275) and became simply a course in Latin with the result that a “rhetorical approach to life is sealed off” (291) for students who learn from the printed word. Poetry and rhetoric were separated (280), fostering the great schism in European philosophical and education traditions discussed in Chapter One of this dissertation.

For modern students, the “exterior, objective world is now viewed as distinct from the interior personal world” (279). Thought is now an anti-social exercise wherein “speech is no longer a medium in which the human mind and sensibility lives. It is resented, rather as an accretion to thought, hereupon imagined as ranging noiseless concepts or ‘ideas’ in a silent field of mental space” (291). The grammar teacher’s job is to now unweave and resolve balances in a text in opposition to the ancient notion of *texare* - to weave - associated with art and rhetoric. In the modern English classroom, students rarely learn to ‘weave’ - do things - with the rules of grammar and rhetoric (263).

Marshall McLuhan echoes many of Ong’s sentiments concerning the influence of the printed word and notes that “as the literal, ‘the letter’ later became identified with light on rather than light through the text, there was also the equivalent stress on ‘point of view’ or the fixed position of the reader” (*Gutenberg Galaxy* 138) inspiring a “movement toward visual word order which eliminates the principle of verbal decorum, is the end of wordplay, and an insistence on the homogeneity of utterance” (278) in the classroom. Jerome McGann notes that, as a result of this process,
critical and interpretive limits are thus regularly established (and for the most part quite unselfconsciously) at the masoretic wall of the physical artifact, whose stability and integrity is taken as inviolable. From an interpretive point of view, this assumption brackets off from attention crucial features of imaginative works, features wherein the elemental forms of meaning are built and elaborated. These forms are so basic and conventional governed - they are alphabetical, diacritical, they are rules for character formation, character arrangement, and textual space, as well as for the structural forms of words, phrases, and higher morphemic and phonemic units - that readers tend to treat them as pre-interpretive and pre-critical. In truth, however, they compromise the operating system of language, the basis that drives and supports the front end software. (115)

McGann concludes, stating, “that computer metaphor explains why most readers don’t fool around with these levels of language. To do so entails plunging into the deep recesses of textual and artifactual forms” (116). Derrida concurs, claiming that within the print apparatus, “we are authorized to see the sun, to deserve the light that keeps us on the surface of the mine” (Of Grammatology 165).

The humanities classroom no longer operates with a concept of ‘method,’ favoring “a routine of efficiency instead of a routine of thinking or discoursing about a routine of efficiency” (Ong Ramus 267). In Ong’s assessment of the modern humanities curriculum, “ironically, what is commonly thought of as scholastic logic by neo-scholastics today is in reality a residual, quasi-scholastic, post-humanist logic, not the logic of the central medieval tradition” (93). For Derrida, “books, the dead and rigid knowledge shut up in biblia, piles of histories, nomenclatures, recipes and formulas learned by heart, all this is foreign to living knowledge and dialectics” (Dissemination 73) because “writing ... cannot flex itself in all senses, cannot bend with all the differences among presents, with all the variable, fluid, furtive necessities of psychology” (114).

The monopoly of ‘learning by the book’ experienced for centuries at all levels of education has been of major influence in creating a population which exists in the sort of passive relationship to signs and symbols described above. Derrida is very direct regarding this problem and writes in Of Grammatology, “writing breeds passive forgetfulness” (lxvii) and furthermore, the “dignity of writing is refused to non-alphabetic signs” (110), which is one reason why the
humanities have been so slow at developing a language, or rhetoric, for communications media not solely dependent on the printed word. Jerome McGann ruefully notes that “interests in ‘literary and cultural studies’ have preserved the book as the critical tool of choice for the humanities community. When it comes to processes of reflection, digital tools lag far behind the technology of the book” (213).

McGann’s last statement remains sadly true, especially for the humanities classroom. However, other departments within the American university system, such as various Fine Arts programs nationwide, are quickly incorporating computer technology and courses designed to capitalize on the growing influence of hypermedia. A colleague of mine who teaches in the Department of Graphic Design in the School of Art and Art History at the University of Florida, was kind enough to answer questions and provide insight concerning the application of multimedia within the Fine Arts curriculum.

At present, she teaches a studio course and a senior design seminar. In the MINT Studio, students run a graphic design course in which they work with actual clients to meet several graphic design needs such as websites, logos, environmental design, posters, etc. Students in this course have collaborated with many departments across the UF campus, including music, theater, and anthropology. Students taking part in the course come from departments like computer science, engineering and digital media. The senior design studio is a finishing course in which students polish their portfolios and work with professionals from outside the university who place them in real world settings as writers, artists and business persons. In both courses, students work intensively with page layout software such as Quark Express, graphics programs like Illustrator, Photoshop, and In-design, HTML programs like Dreamweaver, Go-Live and Flash animation software (interview with Dr. Connie Hwang, 4/21/04).

The most troubling aspect of these new developments for the humanities is that computer engineers and graphic design experts are deciding what shape the discourses emanating from the emergence of hypermedia into our culture will take in the future. The interest in traditional scholarship described above has left the humanities isolated from this process - ironic since it is
the avowed aim of the humanities discipline to increase students’ awareness and engagement of a
culture’s textual objects.

Unfortunately, where graphic design courses recognize the practical importance in
producing a body of students well-versed in the application of new technologies (i.e. getting a
job) and have therefore made these new technologies the central subject and tool for learning, the
humanities have only just begun to introduce cultural studies courses that examine the discourses
of new media and are still far behind other departments in their efforts to create a method
wherein the computer becomes the apparatus through which we teach and our students learn. As
I have already stated many times, the task of this dissertation project, and I would argue of the
humanities discipline in general, is to decide which resources to draw upon in order to create a
rhetoric teachable through the electronic, as opposed to print, apparatus.

In more hopeful tone, Bakutman writes, “television and computer cultures have
repeatedly been posited as formations of spectacular control, but it is important to note that the
new modes of challenge and resistance have themselves become spectacular in form” (27).
W.J.T. Mitchell stresses it is crucial for the humanities to emphasize to students and colleagues
that “anxieties about the power of visual culture are not just the province of critical intellectuals”
(2) and asks, “What forms of resistance are likely to be efficacious in an era when traditional
oppositions (avant garde vs mass culture, art vs kitsch, private vs public) no longer seem to have
cultural or political leverage?” (365) Mitchell, quoting Thomas Crow, states that the avant garde
now functions “‘as a kind of research and development arm of the culture industry.’
Oppositional movements such as surrealism, expressionism, and cubism have been recuperated
for entertainment and advertising and the boldest gestures of High Modernism have become the
ornaments of corporated public spaces” (376).

Dramatic shifts are already occurring within the university curriculum as the liberal and
fine arts work to make up the technology gap that has appeared between the practices within the
classroom and the world at large. Mitchell points out that art history’s marginality is being
overturned “by account of its principal theoretical object - visual representation - that will be
usable by other disciplines in the human sciences” (15). Sandra Kemp agrees and writes in “Technologies of the Face,” “if art looked to science in the 19th Century, now science and technology look to art: or, at best, the two are more interdependent especially in the links between science, art, and technology where discursive and disciplinary distinctions are breaking down” (20).

Guy Debord echoes this sentiment, quoting August von Cieszkowski’s Prolegomena to Historiosophy: “thus, just as the direct practice of art ceased to be the most eminent activity and that preeminence shifted to theory as such, theory is in turn losing its preeminence to the holisitic, post-theoretical practice that is now developing, a practice whose primary mission is to be the foundation and fulfillment of both art and philosophy” (53). For Debord, the point is for the humanities “to actually take part in the community of dialogue and the game with time that up till now have been represented by poetic and artistic works” (52).

During the Twentieth Century, film makers such as Dziga Vertov and Stan Brakhage forged radical departures from the linear, entertainment-based models of popular cinema and attempted to exploit the ways that the technology of the camera “constructs a new kind of vision, extending the power of the human eye and thus the experience of consciousness itself” (Bakutman 218). Lev Manovitch points out that Vertov’s film, Man With a Movie Camera, is motivated by a particular argument,

which is that the new techniques of obtaining images and manipulating them, summed up by Vertov in his term ‘kino-eye,’ can be used to decode the world. As the film progresses, straight footage gives way to manipulated footage; newer techniques appear one after the other.... It is as though Vertov restages his discovery of the kino-eye for us and along with him, we gradually realize the full range of possibilities offered by the camera. Vertov’s goal is to seduce us into his way of seeing and thinking, to make us share his excitement, as he discovers a new language for film. This gradual process of discovery is film’s main narrative, and it is told through a catalog of discoveries. Thus, in the hands of Vertov, the database, this normally static, and ‘objective’ form, becomes dynamic and subjective” (12).

In Vertov’s work, cinematic “effects” acquire meaning. In Manovitch’s words, Vertov creates a “meaningful artistic language” (12).
Scott Bakutman discusses the cyberpunk literature of William Gibson and science fiction films like *Videodrome*, and *Blade Runner* to demonstrate how the “language of science fiction provides a self-critical, discursive level from which theories of language and media benefit” (28). In Bakutman’s analysis, science fiction literature and film have proven adept at using, in Ulmer’s words, “the machine of realism operating in our discourse to say something else, something more and other,” a neo-allegorism (*Teletheory* 8). Like the works of post-modernism, science fiction literature and film “either emphasize [a] sense of dislocation or produce some form of cognitive mapping so that the subject can comprehend the new terms of existence” (6).

Bakutman characterizes science fiction as “inherently ‘writerly’ in the Barthesian sense of positing an active reader who must wittingly construct the text in the process of reading it” in a process that “encourages - demands - a tremendous inferential activity from the reader” (12). Bakutman attributes this quality to the fact that the “language structures of science fiction bear an inherent reflexivity, although not always exploited, that can denaturalize language by foregrounding the processes by which meaning is made” (12). In science fiction films, the inferential activity of viewers is propelled by the films’ “visual organization, and their inevitable attention to the act of seeing,” and thus “the significance of special effects begins to emerge” (13).

A text like *American Flagg* utilizes the mall as a metaphor “to the implosive concentration of images and text” (Bakutman 61) in American culture representing the transcendence of the individual’s capacity in elaborate, post-modern hyperspace “to comprehend the surrounding territory: the inability to get one’s bearings thus becomes a further indicator of the crises of subjectivity and rationality which obtain within post-modern culture” (61). The film, *Videodrome*, also presents the idea of post-modern subjective disorientation through “a destabilized reality in which image, reality, hallucination, and psychosis become indissolubly melded, and it is on this level that the film becomes a work of post-modernity, rather than simply a work about it” (98).
Conversely, literature like Gibson’s *Neuromancer* capitalizes on and revels in the ambivalent tendencies emerging in computer art, modern physics and the collaborations of groups like OULIPO wherein it becomes “impossible to draw a neat line between the serious and the playful” (Bakutman 196). Bakutman notes that, because of its “literalness,” “cyberpunk does not represent the same rejection of high/low (or other) boundaries in culture as postmodern fiction.

Concentrating on Gibson, cyberpunk’s premiere rhetorician, McHale observes that “juxtaposition is Gibson’s primary rhetorical tactic” (167). Gibson’s work depends on seemingly “incongruous juxtaposition” of American with Japanese, high tech with street subcultures, and Bakutman points out that “these ‘incongruous juxtapositions’ or ‘mongrelizations’ don’t elide cultural hierarchies, they revel in them: ‘the effect of incongruity here and elsewhere in Gibson’s writing obviously depends on the persistence of hierarchical cultural categories’ and not on their dissolution.” Gibson’s images and prose deliberately build upon “the detritus of other arts, other fields” (171). Bakutman summarizes the importance of work like Gibson’s as a resource for the humanities’ attempts to engage the changing forms of subjectivity in the electronic environment, writing,

This hyperbolic language, which characterizes the philosophy of Baudrillard as well as the cyberpunk of William Gibson, constitutes a new mimesis - it is a language of spectacle and simulation, a language designed to be appropriate to its era. But the language is more than mimetic: McCaffrey writes that the reader of science fiction is forced to ‘temporarily inhabit worlds’ comprised of ‘cognitive distortions and poetic figurations or our own social relations - as these are constructed and altered by new technologies. The thematic and stylistic estrangement offered by the most challenging science fiction permits that renewal (and cognitive mapping) of the reader’s present. (11)

The “hero” figure of this new mediascape is no longer the English detective - the paradigm of literary logic who solves problems rationally. Hardison calls this figure the “Child of the Enlightenment” (*Entering the Maze* 223) who, like Newton, saw the world as sane and ordered by reason. In cinema, the world of English mystery novels has been replaced in the Twenty-First Century by the world of the “thriller” - a dream world where normal rules of reason


no longer apply, the hero is a buffoon, not an intellectual, and which explores the spectrum of realities having the common characteristic of ‘strangeness’ and varying from the comic through the absurd, the sinister and the daemonic to the explicitly insane. In science fiction writing and, more recently, film, the detective, the man of science, has been supplanted by the ‘‘hacker,’ the saboteur whose capacity to cavort amongst the digital air waves threatens the dedicated participant. This is an individual who, in Jungian terms, personifies the archetypal trickster whose job it is to challenge the stability of the status-quo” (Adams 57).

Manovitch notes that film, and Bakutman would probably add science fiction literature as well, has been able to suture the gap between the aesthetic insight of art and the data and understanding of rhetoric, between representation and communication, via the ability to “overcome indexical nature through montage by presenting a viewer with objects that never existed in reality” (4). Media like these meet the demands of “electronic logic” whereby, “it is necessary to reason directly from ‘thing’ to ‘thing,’ from particular to particular, supplementing the inferential detour through conceptual reasoning” (Ulmer, Heuretics 194).

Manovitch stresses that the goal of research, and I would also add of pedagogy, is to encode the “cinematographic expertise” (86) of film makers, and, here again I add, the “linguistic expertise” of post-modern criticism. The result will be a translation of the “heuristics of film making” (and postmodernism) (86) into not only computer software and hardware, but their applications within the humanities classroom as well, making the cinematic techniques of image production and manipulation the “toolbox of the computer user” (86) and a means to the creation of “writing just as flexible and subtle as written language” (Oswald 237).

**Correspondence: Musings on Memory**

Ulmer characterizes film and television as “‘pure’ memory in the sense that [they] include two of the three elements of artificial memory - the familiar settings and the striking or familiar images or agents. What is missing is the specialized knowledge of Discipline” (Heuretics 192). Kathleen Welch adds in Electric Rhetoric that “the rhetorical beauty of television [and film] is made more apparent when one turns off the sound” (138). Unfortunately,
the rhetoric operating within the play of sound and image in electronic media is studied only by film-makers and scholars in film studies programs, and goes largely unnoticed, unappreciated and unused by persons outside these professions, thus creating the passive relationship of the audience to the images of modern media described earlier in this chapter, despite the fact that individuals exposed to this new “screen rhetoric” are “literate” in new ways.

Ulmer argues in *Teletheory* that just as literacy is the prosthesis of hermeneutics in a print-oriented classroom, video must become the prosthesis of the inventive/euretic thinking possible in the electronic classroom (42). This goal can only be accomplished through the development of a critical language for meta-representation, comprised of the features of electronic media, able to “promote doubt and the acquisition of knowledge,” to use “expert systems and commonsense models, discipline and contingency, folk models of orality and disciplinary models of schooling” (37).

In order to encode the specialized knowledge of Discipline into the relationship between “the society of the spectacle” and the humanities classroom, Manovitch suggests that “by looking at the history of visual culture and media ... we can find many strategies and techniques relevant to new media design” (314). Because new media objects are multimedia in nature, adeptly play upon emotions like nostalgia and desire and our faculty of memory, and “change our concept of what an image is because they turn a viewer into an active user” (183), several scholars have shown increased interest in the visual culture of the Middle Ages as a reference for studying discourses mediated by images and not print.

In his excellent *The Gothic Idol: Ideology and Image-Making in Medieval Art*, Michael Camille argues, “Guy Debord’s society of the spectacle did not suddenly come about in the Twentieth Century; its roots lay in the multiplication of image-investment, in altars, statues, painting and windows that cluttered the medieval church, where the community displayed itself to itself” (215). Eco states the case for studying relationships between electronic culture and the Middle Ages quite bluntly in *Travels in Hyperreality* when he writes of the
fairly perfect correspondence between [the Middle Ages and the modern] that, in
different ways but with identical educational utopias and with equal ideological
 camouflage of the paternalistic aim to control minds, try to bridge the gap between
learned culture and popular culture through visual communication. In both periods the
select elite debates written texts with an alphabetic mentality, but then translates into
images the essential data or knowledge and the fundamental structure of the ruling
ideology. (81)

Furthermore, in O’Keefe’s collection of essays, *The Book and the Body*, Camille notes
that the computer screen, as opposed to the book format, is far more like a medieval manuscript
in its hypertextual nature, glossing, rapid scrolling and iconic-cueing techniques. In addition, he
further stresses the importance of studying the Middle Ages as a resource for understanding
electronic discourses because, in Camille’s words, “the picture-making capacity will, in future
communications systems, overtake all previous discursive strategies. Medievalists are in a better
position than most humanists in the university to deal with the current transformation of writing
into imaging, because we are so involved in the historical process whereby writing and imaging
first became so central in western culture during the 12th and 13th Centuries” (“The Dissenting

The medieval concept of “art” and the discourses within which it circulated during the
Middle Ages are quite different from the present position of the artist and his/her works in
American culture. Johan Huizinga devotes a section of *The Waning of the Middle Ages* to the
changing relationship between the culture of the period and the art that represented it. Huizinga
points out that the Middle Ages knew both art and rhetoric in a more applied sense - the purpose
and meaning of a poem, sculpture, painting, building, etc., “always preponderated over purely
aesthetic value.” Love of art for its own sake was not understood or rejected; the “artist” was not
distinct from a “craftsman,” and his work drew upon high and low elements for all sorts of
occasions (244).

Furthermore an art, or *ars*, for a medieval scholar “was a method or set of prescriptions
that added order and discipline to the pragmatic, natural activities of human beings” (72). The
idea that all artwork must be set in the context of some social function, along with the habit of
seeing an “art” as a creative application of one’s knowledge to one’s everyday life, created a culture of spectacle in the world at large as well as the thinking minds of the Middle Ages, and in both, rationality was inseparable from imagination (Mazzotta 10). Images were acceptable as objects and tools for meditation “as long as they were channels diverting attention from the materiality of the signifier and pointed to its transcendental meaning” (Camille The Gothic Idol 204). Comprehension of the world, whether embodied by a work of art or the habits of one’s mental processes, was the result of a creative process and, in light of the growing influence of technologies which combine arts of representation with those of information, the task for the humanities is to re-discover and utilize the cognitive function of art as understood in the Middle Ages.

As Camille has noted, in this period, which evinced “no bifurcation between ‘popular’ and ‘elite’ culture” (342), the image served as the vehicle for not only mass manipulation, but also high intellection until its replacement by print (Camille 347). Mary Carruthers emphasizes early in her book, The Craft of Thought, “the need to ‘see’ thoughts in the mind as an organized schema of images and use them for further thinking is a striking and continuous feature of medieval monastic rhetoric, with significant interest even for our own contemporary understanding of the role of images in thinking” (3).

Of particular interest to this dissertation project’s attempts at re-designing rhetoric for the electronic apparatus is the extent to which image-making and its discourses in the Middle Ages were bound up with the rhetorical canon of memoria, an interactive, creative, active process quite different from modern concepts of memory and memorization that was absolutely central to the practice of not only rhetoric, but communities’ representations of themselves during the period. In his discussion of the relation between memory and the image, W.J.T. Mitchell describes memory as,

a specific technology, a mechanism, a material and semiotic process subject to artifice and alteration. More specifically, memory takes the form in classical rhetoric of a dialectic between the same modalities (space/time), the same sensory channels (visual/aural), and the same codes (image/word) that underlie the narrative/descriptive
boundary. That is, classical memory technique is a way of reconstructing temporal orders by mapping them onto spatial configurations (most notable, architectural structures), with various ‘loci’ and ‘topoi’ or memory places inhabited by striking images and sometimes even words; it is also a way of mapping oral performance, an oration from memory, onto a visual structure. Memory, in short, is an imagetext, a double-coded system of mental storage and retrieval that may be used to remember any sequence of items, from stories to set speeches to a list of all quadrupeds. (191)

In the medieval rhetorical canon, *memoria* offered orators, artists, and scholars a “pictorial script” able to conjoin epistemology, invention, mental images and delivery (Enders *Rhetoric, Coercion and the Memory of Violence* 25). W.J.T. Mitchell argues that investigation into this form of memory can be useful to the restructuring of humanities disciplines to accommodate the computer apparatus because the “imagetext structure of memory seems to be a deep feature that endures all the way from Cicero to Lacan to the organization of computer memory” (193).

Scholars like Ulmer describe *memoria* as a practice and process, not a subject, in which memory information is organized associationally, so that the ‘address’ of an item is another item related to the first item by its content. Knowledge is not in place, it is not there, except as a ‘ghost’ - as the pattern of an activity as a whole. A key issue of this ghost economy concerns its shortcuts, its efficiency, the reflection process by which the user judges what is and is not relevant to the case; “remembering is not essentially different from solving everyday problems, because in each case, fragments of incoming information wake up networks of interacting knowledge, resulting in a pattern of activity that represents a memory, or the answer to a problem, that is most consistent with the evidence” (*Heuretics* 216).

Activating networks of information motivates the intertextual play of “a vast terra incognita of mythologemes, ideologemes, descriptive systems and sememic structures that the sociolect feeds into texts and which is the stuff, the precast, prefabricated stuff of literature [which] lives a latent life and remains in a state of potential indeterminacy until activated, fixed up by what readers find in the text that is analogous and homologous to their stored-up possible worlds” (Riffaterre 33). In this associational, intertextual process of memory, Marcia Colish
points out that, for practitioners in the Middle Ages, both the verbal and the pictorial had the same cognitive and communicative functions (qtd in Enders Rhetoric and the Origins of Medieval Drama 53).

Carruthers terms the verbal and pictorial tools of memoria “ornaments of brevity,” whose force consisted in the “inventive abundance or ‘copiousness’” by which they gathered together in one’s mind associations through homophonies, assonances and dissonances, puns, parodies, etc. (Craft of Thought 156). Eugene Vance characterizes the image and the word as they were understood and used in art and scholasticism of the Middle Ages as points of “convergence, intersection, refraction of a number of discourses” which had privileged place in memoria because of their capacity to “animate a sizable portion of the latter by enabling the activation of all the discourses that course through [a] specific locus” (xv) and thus function like a computer’s RAM (Random Access Memory), and provide a “set of patterns or foundations upon which to construct any number of additional collations and concordances” (Carruthers Book of Memory 16).

The ‘mixed’ use of verbal and visual media in the often synaesthetic literature and architecture of the Middle Ages, “is a quality of medieval aesthetic practice given major impetus by the tools of monastic memory work” (3). The tools made of language and image supported one another. Carruthers states, “manuscript painting traditions suggest the mnemonic role of book decoration was consciously assumed from the beginnings of the book in the west” (Book of Memory 131). Manuscript images functioned “textually” and gave users a way of dividing up, marking and punctuating a text (distinguere) and the relative positioning of such images acted as cues to the order of the material with which they were associated (133).

In monastic education, the complementary relationship of words and images represented an “art for mneme rather than mimesis” (3). This art of tropes and figures was an “art of patterns and pattern-making” (3) that enabled the artificial organization of a mass of unrelated material. Carruthers notes the “figures in the ‘carpet pages’ of interlace in The Book of Durrow and Kells ... must be looked at again and again, absorbed and made one’s own .... One looks long enough
to begin putting together what at first seems fragmentary” (254). Carruthers presents Giraldus’ commentary on The Book of Durrow and Kells as support, and the medieval scholastic’s language resonates surprisingly with words that echo Derrida’s deconstructive terminology in Of Grammatology. In Giraldus’ opinion, “superficially (the book) seems an erasure, not tracery .... You will make out intricacies so delicate and subtle, so exact and compact, so full of knots and links, with colors so fresh and vivid, that you might say that all this was the work of an angel” (qtd in Carruthers Book of Memory 255).

This ruminative, meditative activity of a sort described by Nietzsche in Chapter One of this dissertation, was not limited to images alone. Words also were objects of contemplation whose purpose was not simply to express a ‘truth,’ but rather to “unlock and gather up the energy” of a particular word. This sort of etymology, dismissed by Curtius as “insipid trifling,” but now acknowledged to be the present domain of the avant garde, proceeded in terms of creativity and invention as much as ‘truth’ (and not in terms of historical philology)” (Carruthers Craft of Thought 156). For the scientifically trained student of philology, “this figure is annoyingly playful for it pays no attention to the actual history of words, but instead whacks up the roots and endings, rearranging them arbitrarily and inconsistently, apparently just to make some whimsical rhymes and far-fetched puns, often in two or more languages at the same time which may or may not have anything to do with the actual language of the word being ‘etymologized’” (155).

Carruthers gives us the example of a 12th Century English monk from Pontefract abbey, writing a saint’s life, who began by etymologizing his name, or rather ‘riffing’ from the starting point of Thurstan (Anglo-Saxon), from Latin thus: Thuris (incense) or Turns Stans (standing tower) (156). She also discusses the extensive wordplay utilized by Hugh of St.Victor to create his arca sapientiae, which was at once arca - both the “ark” of Noah and the “chest” where the Covenant of God’s arc-ana (secrets) are hidden away - as well as arc-es, or “citadel,” and arc-us, the “triple triumphal doorways,” leading to the Divine. The concordances of sound (syllables) and shapes (arches, gates, chests, walled cities) “are fundamental to meditative
troping, making a mnemonic machine that can serve to inventory and ‘find out’ a multitude of ‘things’ hidden away (arcana) in memory” (150).

From antiquity, the image was understood to be a powerful tool for containing and conveying vast amounts of information. Information was transferred from writing on a page or spoken words one heard, to images impressed in one’s brain by emotion and sense (Carruthers Book of Memory 10). Carruthers, as I already pointed out in the first chapter of this dissertation, stresses that visual coding of this sort, “like writing, allows the memory to be organized securely for accurate recollection of a sort that permits not just reduplication of the original material, but sorting, analysis, and mixing as well, genuine learning, in short, rather than simple repetition” (19).

In this combinative, compositional activity of the mind combining images from memory’s store (33), its users were taught that “received meanings can be a hindrance to constructing mnemonically valuable markers and every writer on the subject urges students to form their own ‘habitual’ schemes rather than relying on those of others” (21). Augustine encouraged his pupils to meditate upon the Scriptures and retain their reading and revelations by compiling images to serve as “hooks” in their memories particular to their own knowledge and reactions. These personalized “hooks” in the form of imagines agens allowed students to “domesticate,” that is, internalize in a personal fashion, subjects of learning. Carruthers notes that “no advice is as common in medieval writing on the subject and yet so foreign, when one thinks about it, to the habits of modern scholarship as this notion of ‘making one’s own’ what one reads in someone else’s work” (164).

The nature of mnemonic association was intensely personal, often arbitrary, and neither universal nor necessary (Carruthers Craft of Thought 178). Thus, knowledge was imprinted upon memory in a “signature-like” fashion, “as with signet-rings” (17) by using incredibly affective images, sensorily derived and emotionally charged, that went beyond the notion of existing as simple abstractions, and which were heavily associated with the time and place in which the information they contained was first apprehended. Students were trained to make
extensive use of their own experiences as reservoirs for the figures and emotions necessary for the compilation of effective “hooks” (59). Camille notes in *The Gothic Idol* that “iconographical dictionaries would have been of little use in the Middle Ages when the meaning of a motif or represented thing depended totally on its context and function. Both the exegetes of Scripture and artists manipulated conventions in order to evoke different and sometimes dialectically opposite associations” (200).

McLuhan acknowledges that mnemonic images “contain a wide complex of ideas that would fill volumes were they written down” (146). In *De Memoria et Reminiscentia*, Aristotle describes memory as a mental picture (phantasm, simulacrum, imago), “an ‘appearance’ which is inscribed in a physical way upon that part of the body which constitutes memory” (qtd in Carruthers *Book of Memory* 16), with the result that all sense perception ends up as a phantasm in memory. These ‘seals in the wax,’ incised on one’s memory, symbolize information and thus are ‘representations’ that serve a cognitive purpose, as do representations of words, whether by phoneme or syllable or unit of sense, used in writing systems (Carruthers 22). Images utilized in this way allowed users to “organize single bits of information into informationally richer units by a process of substitution that compresses large amounts of material into single markers” (84).

The *imagines agens* of the *ars memoria* capitalized on the fact, acknowledged more recently by figures like Nietzsche and Freud, that memory retains what is extraordinary, wonderful, intensely charged - in other words, images of extremes - whether of ugliness or beauty, ridicule or nobility, laughter or weeping, worthiness or salaciousness, bloody figures or monstrosities, or figures brilliantly or abnormally colored, all of which would be engaged in activity of an extremely vigorous sort and associatively joined to one another in an active, even violent manner (133-134).

**Shock: Useful Acts of Violence**

The idea of using acts of violence or the violent disfiguration of objects as rhetorical tools is potentially very useful for the humanities disciplines of the present. Scholars have noted an increasing obsession with a fragmentation of the human body alongside the ubiquitous violence
in art, information media, games, cinema and most entertainment forms of our culture. In the 
preface to *Discourse Networks*, Kittler utilizes the term “corporeality” to describe the condition 
of modern subjectivity in which “discourse networks are inscribed upon the body” and describes 
it as process whereby the body replaces the subject in a transformation which “disperses (bodies 
are multiple), complexifies (bodies are layered systems) and historicizes (bodies are finite 
contingent products) subjectivity rather than exchanging it for a simple absence” (xv).

For decades, feminist critics have examined how modern media has heightened the 
objectification and fragmentation of the female body in service to producer/consumer 
relationships which play upon metonymic uses of the human form in order to manipulate the 
emotional responses of an audience. Scott Bakutman expands upon this view to characterize the 
culture of all bodies inhabiting “terminal identity” as a “post-modern crisis of a body that 
remains central to the operations of advanced capitalism as *sign*, while it has become entirely 
superfluous as *object*. The body exists only as a rhetorical figure” (*Terminal Identity* 16).

Unfortunately, only the producers of “the operations of advanced capitalism” have fully 
grasped how useful and powerful the body can be as a “rhetorical figure.” Bakutman also points 
out how, in the genre of horror films, “the return of the body could actually be understood as an 
obsession with the surface of the body” (261). Film makers in this genre tend to figure the body 
as “incomplete and inadequate” and in the buffoonery of principle characters (which usually gets 
them slaughtered wholesale), “the rational is betrayed by the physical” (268).

Bakutman also notes how science fiction cinema incorporates mutilation of the human 
form in order to explore how subjectivity is absorbed and transformed by the electronic 
apparatus. In *Videodrome*, the body of James Woods’ character “literally opens up - the stomach 
develops a massive, vaginal slit - to accommodate the new videocassette ‘program.’” Image 
addiction reduces the subject to the status of a videotape player/recorder; the human body 
becomes part of the massive system of reproductive technology” (89).

However, habits of deformation and disfiguration in electronic media are not limited to 
furthering the passive image addiction of the post-modern subject. In *Radiant Textuality*, Jerome
McGann tells us that even though “criticism (scholarship, interpretation) tends to imagine itself as an informative rather than deformative activity” (114), the deformation of images in computerized art editing programs suggests that such operations “can be used to raise our perceptual grasp of aesthetic objects” (85). In McGann’s opinion, “distortions suggest the usefulness of thinking about art as if it is informed by an idea, or an inertia that has not been exhausted in the executed fact of the work we think we know. This is a ancient way of engaging art revived by symbolist and surrealist practice” (87). At present, though, the humanities possess “no vocabulary for talking about this process of developing unknown images in relation to familiar aesthetic images” - a dialectical relation which arrests our attention because we already know the original (86).

In my own attempts to develop such a vocabulary, I have turned to the Middle Ages as a relay and discovered surprising correspondences to each of the habits of electronic culture described in the preceding paragraph. As a central episode in the final chapter of Christ’s life, the agony of the Passion inspired a powerful tradition within the Church of painful disfiguration of the mortal human form as a path to divinity. The long line of martyrs from early Christian history were followed by ascetic monastic practices which revolved around inflicting actual physical pain on students so that they might remember their lessons by associating them with the physical price paid not only by Christ, but the martyrs whose blood helped found the Church in Rome. In several of her books and essays, Mary Carruthers has also explored the tradition of compunctio cordis, “puncture the heart,” whereby monastic students dwelt upon extremely tragic and horrific images and stories knowing, like Nietzsche and Freud after them, the trauma and heartbreak of exposure to these scenes would make these exemplaria unforgettable.

This extreme fascination with the disfiguration of the human body as a powerful rhetorical tool continued throughout the High and Late Middle Ages in both sacred and secular circles. In Chaucer’s Body, R.A. Shoaf observes that the late Middle Ages in England evinced a “more mysterious circulation of goods and people as well as signs” (4) brought on by several major events in the second half of the Fourteenth Century: 1. The Black Plague; 2. Increased use
of coinage; 3. Increase of vernacular literacy; 4. Uncontrolled spread of heresy; 5. Restless mobility of the lower classes (peaking with the Peasants Revolt of 1381); 6. The gradual and incomplete, but distinct, empowerment of women; 7. The shocking circulation of the monarchy at the end of the 14th Century with the deposition of Richard II (Shoaf 3).

Like the subject of the post-modern, electronic moment, Shoaf emphasizes that in Chaucer’s period, the “desire to express ‘I’ is also the desire to locate and stabilize the subject in a world increasingly marked by the instability of uncontrolled circulation” (4) and “the very fluidity of people and signs generated the need for a discourse of people and signs in complex (e)motion” (5). Chaucer’s anxiety over the increasing “circulation” (3) of bodies naturally led him to use the human body itself as a central figure in his rhetorically charged poetry. In The Canterbury Tales, Chaucer makes heavy use of metonymy and juxtology; associations driven by assonance and dissonance; references to and in some cases outright pillaging of sources - sacred and secular, high and low, contemporary and classical; Geoffrey’s commentary on the pilgrims’ physical appearances; their conversations; presentations of themselves; the events in their prologues and tales, and constant surprises (Shoaf 10) to reinforce the notion that “the body in Chaucer is fragmented and vulnerable” (11). The tales remind us that the body “is broken and breakable, fragile and frangible - beaten, battered, abused: in a word, fragmented, or reduced to the body of a wild beast” (14). Chaucer uses rhetoric in his verses to re-member “the social as well as personal fragmented body when nothing else can” (11).

Jody Enders has also extensively investigated the way in which images of extreme violence were, like similar images in modern media, used in the Middle Ages as vehicles for mass manipulation. In Rhetoric, Coercion, and the Memory of Violence, she writes, “when Deleuze and Guattari extrapolate from Nietzsche that societies record their essences in such violent operations as ‘tattooing, excising, incising, carving, scarifying, mutilating, encircling and initiating,’ with the design of ‘creating a memory for man’ (Anti-Oedipus 144-45), they too stress the importance of a primordial cultural drive to invent a collective memory from violence” (44-45).
With regard to the medieval period, Enders notes, “rhetoric documents the commingling of legal, political, or theological process, literary invention, violence, and dramatic performance. Rhetoric is the theoretical site at which the violence of representation is articulated as theory, rehearsed in the imagination, and concretized dramatically” (Enders *Medieval Theater of Cruelty* 9), particularly in public punishments and mystery plays. The acts of violence performed upon the bodies of sinners and saints alike in medieval public spectacles were objects of meditation for an audience to observe in order to remember the rules governing not only divine events, but those of their everyday lives.

These spectacles functioned as tools of learning in the same way that similar imagery did in manuscripts studied by the period’s clergy. Enders points out that “torture has always been intertwined with rhetoric, law, and theater at the levels of etymology, ideology, and performance” (27), and in these public displays, “the ‘truth’ of medieval torture is cast in terms of dramatic verisimilitude, probability, character, and catharsis, and adumbrated with a panoply of theatrical, illusory, subjective and aesthetic terms, while the ‘truth’ of highly rhetorized medieval plays is frequently enhanced by scenes of torture” (3). As a tool of persuasion not only for its victims, but the audience observing such acts, “torture was extremely persuasive in its tautological manipulations of artifice, power, agency, and spectacle - the precise qualities that underpinned the invention of ‘good’ rhetoric and ‘good’ theater” (34).

In medieval rhetoric, *memoria* was conceived as a “mental space in which violently discovered ‘truths’ of invention were visualized through detailed visualizations which functioned as virtual performances” (5), and “mnemotechnics answered acts of violence with acts of commemoration, iteration and regeneration .... [in] a vast epistemological system ... by which any rhetor could generate and store words, stylistic devices, topoi, proofs, and performances before speaking and enacting them” (64). As a principal means by which the learned “organized, categorized, and hierarchized their world and their thoughts, the memory space was no mere ‘frame’,” but rather a process “that raised those exposed to it to aestheticise both figuration and disfiguration” (70).
Enders feels that “dramatists of the cycles produced a process that was not only violent and dramatic, but mnemonic in its reliance on generative figures” (121), and argues, “specific invocations of mnemonic techniques restage, commemorate and perpetuate various violent lessons, whether these be the great agon of Christianity or the apparent comedy of the submission of servant to master and woman to man” (67). Enders continues, stating,

as a violent, dramatic process, rhetoric promises to illuminate substantially such an oft-staged moment as the scourging of Christ in medieval religious drama. On the one hand, that scene exemplifies the rich if frightening union of word and action, investigation and punishment, epistemology and violence, torture and death. On the other hand, in the reciprocal relationship between rhetoric and literature which has long been affirmed by historians of rhetoric, a violent literary (and in this case, dramatic) moment might have influenced the conception of new rhetorical treatises. (6)

This sort of violently influenced invention was possible because in the medieval culture of spectacle, moments of extreme violence were always “decontextualized .... A beating was never associated exclusively with the theater. Instead, it recalled other spectacles of punishment (legal or illegal) in which bodies in pain were displayed” (6). With particular regard to the medieval mystery and morality plays, Enders stresses, “the reintegration of memory into medieval drama criticism promises to shed considerable light on the long standing debate about medieval textuality, insofar as it offers detailed evidence as to how early theorists conceived of a kind of symbiosis between image and performance: one that is rehearsed within the memory scene” (110).

Dante Alighieri’s Commedia represents the most famous medieval example of the rhetorical uses of violent disfiguration of human bodies and the dis-figuration of well-known images. Especially in Inferno, the horrid physical appearances of the sinners and the violent tortures they are subjected to at the hands of malicious devils evoke through their powerful, unforgettable images the various discourses Dante utilizes to present his arguments on particular issues. The physical punishment meted out to each sinner embodies the sin he or she committed in life. One of the more memorable examples of this tactic is to be found when Dante the
pilgrim and his guide Virgil enter the eighth bolgia of Hell to encounter the sowers of discord. They find those sinners who have torn communities apart with their schemes are now themselves rent and horribly torn in manners that reflect their particular crimes.

The most notable persona to emerge from this group of the damned is the famous poet/knight Bertran de Born. Bertran’s persuasive wiles were credited by many with turning the sons of Henry II (Richard Couer de Leon among them) against their father and instigating years of internecine strife in the royal family of England. Thus, having sundered the head of a great family from his progeny, Bertran is himself decapitated in Hell. Dante extends the association of his “verbal figuralism” (cite) still further, reminding us that Bertran was a notable poet by having him hold for his severed head like a lantern, an image already associated earlier in the poem with the poet’s beloved Virgil. The difference here is that while Virgil’s genius was a guiding light for those who followed him, Bertran’s deviousness guided a royal household to ruin, earning him the ruination of his own body in the afterlife.

I have already noted in Chapter One how Virgil is also an example of Dante’s ability to dis-figure the objects of his education and turn them to his own purposes in the Commedia. Mary Carruthers reminds us in The Craft of Thought that Dante re-invents Virgil’s image, transfiguring him from a god-like figure who could perform magic, into the earnest, pure-hearted, sometimes flawed teacher and guide of the Commedia. Carruthers’ own language describing this process is heavy with notions of disfiguration and dismemberment as she writes, “Virgil is taken apart not to obliterate him and ridicule him, but to save him. And the only way to save him was to re-member him, re-locate him and re-pattern him into a Christian” (58).

**Appropriation: Secular Applications of Church Rhetoric**

The mnemonic arts and their relationship to the artistry of the Late Middle Ages continue to be an extremely useful relay for assessing and making better use in the humanities of the electronic environment as a subject for discussion and tool for learning. This potential is particularly compelling because, like our own rapidly transforming technological and social habitations, the later Middle Ages witnessed an “expanding society, not only more complex in
itself, but consequently in its self-reflection, as the mirror world of its representations teems with images” (Camille, *The Gothic Idol* 244). Scholars have long noted the later Middle Ages experienced radical changes in subjectivity wrought by “the irruption of subjectively experienced history into the culture world of the middle ages with its epic, mythological, philosophical and rhetorical stamp” (Curtius 369). In Peter Brown’s opinion, this development emerged in part from the transformation of society’s notion of the supernatural from “group legitimation to substantiating the ‘inner resources of the individual’” (as qtd in Camille, *The Gothic Idol* 224).

Dante and Chaucer are representative of a period in which a new, sometimes dangerous, freedom of expression emerged in artistic works which liberally appropriated the carefully sanctioned images of the Catholic Church. As the concept of the artist moved outside “the theological constraints of a ‘secondary’ maker” (Camille 244), religious metaphors were increasingly borrowed to express profane sentiments (Huizinga 157). Camille notes that by pilfering the various image topoi of the Church, poets developed a “schema for self-presentation that increasingly allowed the writer a framework for his own voice” (*The Gothic Idol* 314). In his discussion of the work of Chretien de Troyes, Eugene Vance notes that his use of the image of a lion is a way to produce his own poetic identity. Vance states,

> given that metaphors are speech acts that always signify discursively, and not in isolation, Chretien has ‘found’ in the lion a symbol whose polyvalence will work his text as a shifter between multiple discourses (biblical, classical, folkloric, scientific), all of which he entertains, yet controls, as he distributes them within the economy of his own story, thereby asserting the preeminence of his own poetic voice as a vernacular litteratus over the tangled legacy of discourses inherited in his matiere. (84)

Subversion of these sacred codes by analogy allowed for the depiction of new, often erotic, and sometimes political experiences outside the confines of schematic religious narrative (Camille 314).

The period of the Late Middle Ages represents a fascinating appropriation of institutionalized rhetorical and artistic practices for the production of some of the most brilliant individual statements ever produced in works of art. Curtius states eloquently, “the tension
between Latin and Volgare becomes more perceptible the more the poet is imbued with Latin
culture and the more he is inclined to technical experiments” (351). Both these points create the
palpable tension over the creative process that readers witness throughout Dante’s *Commedia.*
Edward Peter Nolan argues, “Dante’s allegory is mimetic of the allegory of the theologians,” and
his dense “verbal figuralism” functions typologically in the *Commedia,* systematically driving
the poem with the result that “every event in one part of the poem should figure forth and be
fulfilled by another event in the poem” (*Through a Glass Darkly* 175). Although the results are
still dazzling to behold, Dante’s use of the rhetorical play of images gained from his education
within the Church is constantly grappled with and fretted upon by the Florentine within his
verses.

While Dante’s vernacular gained (somewhat guiltily) connotational authority from the
stable structures of Latinity, other artists and artisans were not nearly so contrite and Camille
points out that working outside the Church’s norms “also typifies the art works described in the
romances, the statues, mausoleums, and other marvelous architectural structures in ‘Latin’ or
ecclesiastical ‘Gothic’ guise” (243). Shoaf argues that William Langland produced several
versions of his inflammatory *Piers Plowman,* “because his culture had abstracted itself from
stable ‘tradition;’ its codes circulating in ever wider arcs of complexity” (5). The most important
message that emerges from the works of figures like Langland, Chaucer and Dante, and one we
would do well to impart to Twenty-First Century students of the humanities, is that, as Shoaf
states, “rhetoric is magic that every man can practice to some degree” (71).

Dante’s *Commedia* is easily the most completely realized example of an artist’s
borrowing from the rhetorical traditions of the medieval church for his own purposes. For the
Florentine, the art of memory was a “watershed form for the rhetorical conception of how to
reenact a dramatic story by showing and telling it during delivery,” creating a performative
conflation of ‘image, word, and commemoration in an activity that was as symbolic and
inherently dramatic as the sacred ‘dramas’ of the medieval church” (*Rhetoric and the
Origins of Medieval Drama* 53).
Of course, the use of Church traditions concerning the rhetorical applications of images in the art of memory was coupled with misgivings in that tradition about the material, incomplete, fallen nature images beheld in the outer world and in the mind. In the 12th Century, Andreas Capellanus characterized love as the “immoderata cogitatio of an interior phantasm” and the 15th Century Florentine Neoplatonism of figures like Ficino, heavily influenced by Dante’s poetic endeavors, and echoing Agamben’s sentiments concerning melancholia, acknowledges, “the double polarity of demonic magic and angelic contemplative of the nature of the phantasm is responsible not only for the melancholics’ morbid propensity for necromantic fascination, but also for the aptitude for ecstatic illumination (Stanzas 24).

Medieval students of the Narcissus story, systematically referred to throughout the Commedia, “did not identify love of self but rather love for an image” as the salient feature of the tale during the Middle Ages (Agamben 82). The sin of Curiositas, affectively and effectively embodied by the lovers Francesca and Paolo in Inferno V, is more often defined in the Middle Ages “as a desiderium oculorum, ‘desire of the eyes,’ than in any other way. There is an optic quality to curiosity; the curiosity of the eyes is the world’s curiosity in acquiring temporal things and empty cares” (Evans 114).

Dante’s teacher, Bruno Latini, held to the conviction that “it is within, in the inner images which are nearer to reality than the objects of the outer world that reality is grasped” (Yates 299). By holding to the virtue of Prudentia, prudence, one could make moral, ethical use of the images generated either in one’s mind or, in Dante’s case, a poem. Frances Yates has claimed, “Prudence is a leading symbolic theme of the poem, its three parts can be seen as memoria, remembering vices and their punishments in Hell, intellegentia, the use of the present for penitence and acquisition of virtue, and providentia, the looking forward to Heaven,” and calls the Commedia an “intense visualization to hold in memory [Dante’s] scheme of salvation” (95). Nevertheless, as Mazzotta notes, Dante’s poem contains “a pattern of figurations and concerns that dramatize how far beyond St. Thomas’ prudence and constraint about play Dante’s vision can stretch” (217).
Dante operates from the notion that “the aesthetic imagination is the ground of cognition” (Mazzotta 217). Umberto Eco argues the aesthetic imagination was understood by Dante “not as the flashing exercise of an intuitive faculty, but as a process of intelligence that deciphers and reasons, enraptured by the difficulty of communication” and calls this the “pivotal” element of the *Commedia* (Eco *Chaosmos* 83). Carruthers notes that story telling in the *Commedia* proceeds by “picture making.” Each episode in the poem becomes a “‘frame’ or ‘form’ which (or into which) one learns to hook up a multitude of diverse material” (*Craft of Thought* 150), and ‘shows’ something by strategic elaboration of an image (Eco 27). Such ‘showing’ and ‘telling’ in Dante draws upon what Quintilian referred to as *enargeia*, the power in verbal description to call up cognitive ‘visions’ useful for invention and able to call up “the emotional energies of oneself and one’s audience” (Emmerson 172) necessary for good teaching and learning.

*Inferno XIX* presents an excellent example of the way the *Commedia* “offers poetry as well as philosophy” (Curtius 595). In this canto, and indeed throughout the *Commedia*, “the entire book imagery of the Middle Ages is brought together, intensified, broadened and renewed by the boldest imagination in Dante’s work” (326), and the subject matter of the figurative language driving the poem is constantly “value charged” (303). *Inferno XIX* centers around the nepotism and greed of the simoniac popes, Nicholas III, Boniface VIII, and Clement V. Dante intertwines biblical, apocryphal, sacramental, contemporary and autobiographical sources to produce an image of these sinners through assonance, parody and wordplay.

In particular, Dante draws heavily upon the story of Simon Magus from Acts 8.9-24 and the apocryphal *Acts of Peter*. Simon Magus, the great counterfeiter who sought saintly powers through monetary and demonic ends, was regarded as the major opponent of Peter’s and Paul’s preaching. Simon’s upside down fall from the heavens during his attempt to ascend in Christ-like fashion in the arms of a demon is a powerful image that is re-used in this canto to emphasize the fallen, corrupted qualities of these three popes. The sinners are shoved head-down into flaming baptismal fonts to reflect their kinship with Simon’s sin and parody their inferiority to the magnificence of Peter, the first pope who was himself crucified upside down. The fonts
themselves are drawn from Dante’s own experiences at the Baptistery of San Giovanni, and the poet presents them as having been broken to re-enforce the notion of the Church’s corruption, thus strengthening the ‘memorable’ quality of the images being portrayed in Inferno XIX.

Furthermore, assassins of Dante’s period were buried upside-down and Dante notes that he stands over Nicholas III like a friar over the accused. The association emphasizes the notion expressed in the Canto that these men have been instrumental in assassinating the virtue of the Church in Rome. Nicholas III admits to the pilgrim that his greed in life has caused him to “pocket” (19.72) himself into the font like a coin into a bag. Clement V is compared in lines 85-87 of the poem to Jason of 2 Maccabees who bought the office of high priest. Emmerson notes that the trumpet blast at the beginning of the canto and the sheep/goat allusion in line 131 of the canto signify the scenes of judgment well known to Dante from apocalyptic Last Judgement iconography. He continues, stating, “what is given an apocalyptic and hence universal framework within this canto is not simply the condemnation of an especially heinous and destructive group of sinners, but the journey of the pilgrim from ignorance to knowledge, from self to God” (140).

In Emmerson’s opinion, the Commedia “is both the experience of Dante’s journey as it is unfolding in time, and the record of that journey in his memory after it has taken place” (142). The result is a “view of eschatology both personal and universal” (106) which is, like Ezekiel’s vision of the New Jerusalem as commented upon by Gregory the Great, “not to be understood literally, but figuratively, fictively and taken as evidence” for the arguments on simony and corruption that Dante makes in the canto. The ethical, mediational usefulness of the imagery in this canto and throughout the Commedia is “foregrounded over ‘objective’ truth” (184)

Challenge: Rediscovering the Rhetoric of the Image

Users of the mnemonic arts recognized the power of making full use of the total range of human emotions and discourses. In her insightful studies of the medieval mnemonic arts, Carruthers notes in The Book of Memory, that, like the science fiction prose of writers like Gibson, “no opprobrium of childishness or frivolity or obscenity or inappropriateness attaches to
such image-making. The disgusting and the silly, the noble and the violent, the grotesque and the beautiful, the scatological and the sexual are presented ... usually as part of some scene, just as memory dictates” (137). As I already noted in Chapter One, the narrative details of these images are few, but nevertheless vivid, specific, and uncluttered. Not only are they “eye-catching,” but also fully synaesthetic: a total sensory experience that includes sounds, tastes, smells, and touch (particularly pain). Intense images of this sort “stick in the mind not as ‘concepts’ or ‘objects’ but as an inventory of synaesthetic, syncretic memory cues to be drawn upon, drawn out from, and used for constructing new work” (Carruthers, Craft of Thought 148).

In her two excellent books on medieval mnemonic arts, The Book of Memory, and The Craft of Thought, Mary Carruthers has extensively discussed the nature of the properly made phantasm beheld by the mind’s eye. Regarding the synaesthetic quality of these imagines agens, Carruthers writes, “memory images are composed of two elements: a ‘likeness’ (similitudo) that serves as a cognitive cue or token to the ‘matter’ or res being remembered, and, intentio, or the ‘inclination’ or ‘attitude’ we have to the remembered experience, which helps classify and retrieve it. Thus, memories are all images and they are all and always emotionally colored” (Craft of Thought 13). The phantasai resulting from this syncretic process represented a “balance of the individual and communal adjusted with tools of rhetoric: images and figures, topics and schemes” (21).

Because these tools of rhetoric were understood to be social phenomena with a great deal of ethical and communal instrumentality, figures like Albertus Magnus considered the memory arts to be valuable not only for the rhetor, but also for an ethical life and good judgment (Carruthers Book of Memory 138). Albertus used the term ‘phantasy’ to describe the comparing, uniting, dividing faculty which combined imagination with memory. Avicenna called phantasia the link between the power of the mind and the exercise of will (Collette 8-9). The intentio driving the exercise of one’s ‘phantasy’ was thus the judgement or use attached to a word or object which identified what community one belonged to. Where the similitudo (word or image)
remained constant on its surface, students understood that their application of *intentio* changed its meaning associatively (Carruthers *Craft of Thought* 45).

As an example of this principle, Carruthers points out how Augustine “treats the ‘gold and silver’ of the pagans in the way that rhetoric treats its tropes and common places, which are useful precisely because they are not absolutely invariable in their form, but can (and must) be ‘turned’ (the basic metaphor in ‘conver’ as it is also in ‘trope’) in the speaker’s own ethos” (126). Understanding the concept of *intentio* resulting from such combinations of figural, emotional resources and individual, contextual needs is crucial to attempts within the modern humanities disciplines to re-habilitate the image as a useful rhetorical tool in our classrooms.

As noted above by Ulmer et al, images wield power in modern media by way of their ability to manipulate the nostalgia and desire of their audience, and as Carruthers has stated, “*intentio* and *converto* assume a degree of conscious control over emotions foreign to modern psychoanalysis which are predicated in the notion that emotion is part of an uncontrollable ‘unconscious’” (qtd in Frese and O’Keefe *The Book and the Body* 20). This conscious control over emotions and images that evoke them was the vehicle for *inventio* (invention) in medieval rhetoric. Those who used the rhetorical arts for a variety of ends in the Middle Ages habitually understood invention to possess a double meaning in the compositional art of *memoria*. *Inventio* represented not just the creation of objects to be stored away as “inventory,” but also the “invention” of discourse through the inventive juxtaposition and disfiguration of these same objects.

This ability to “riff” with figurative language and the figures of *imaginæ agens* themselves has its roots in the classical foundations of rhetoric. *Rhetorica Ad Herennium*, a central text for medieval rhetorical practices, declared “the crown of all our study and the highest reward of our long labors is the power of improvisation” (Carruthers *Book of Memory* 205). An excellent, oft-cited, example of this process appears early in the Old English poem *Beowulf* when the aged king, Hrothgar, gazes upon a sword hilt depicting the Flood and uses the depicted scenes on the weapon to both praise Beowulf and reflect generally upon human life and death.
The hilt, “is not only ‘inspiration,’ but an invention ordering instrument with which he composes” (Emmerson 205).

Carruthers’ predecessor, Francis Yates, notes that “in this atmosphere, the relationship between man, the microcosm, and the world, the macrocosm, takes on new significance. The microcosm can fully understand and fully remember the macrocosm, can hold it within his divine memory or mens” (148). The rhetorical arts, particularly memoria, operated under “the profound conviction that man, the image of the greater world, can grasp, hold and understand the greater world through the power of his imagination” (230). Though this habit has all but disappeared from the humanities disciplines and most of the university curriculum in general, the fine arts have seen a flowering of improvisational approaches since early in the 20th Century. Carruthers reminds us that the “elaborately punning riffs of memory do to a word [or image] what jazz does to a written musical phrase,” turning it into oratio brevis “serving as a germ for an expanded composition” (Craft of Thought 159).

Such an awareness of the power of the image as a site for storage and invention, not merely mimetic or artistic representation of objects, was clearly understood by those who used both words and images as sites for “clustering” discourses together. Martianus Capella characterized the imagines rerum (images of things) as compositional sites and associational cues that could ‘gather in’ much related material laid down elsewhere in memory in what postmodernists would describe as a “deconstructive” process able to unlock the latent host of meanings embedded in a word or image (Carruthers Book of Memory 149).

Gregory the Great characterized this use of word and image in memory as the act of providing a “habit,” or clothing, for the edifice of one’s thinking, and in the context of monastic culture, worshiping mind. In his words, it was the scholar’s task to put in place the foundation of literal meaning, and build up the fabric of the mind through typological interpretation in his “walled city” of faith, and, through the grace of moral understanding as though with added color, “clothe the building” (18).
Carruthers has described *memoria* as a “modality” of medieval cultures utilizing symbols which were matters of relationships to be publicly recognized and remembered. These symbols were not absolutes, but functioned entirely within social life (259). “Representation” was understood not in an objective or reproductive sense as often as in a temporal one: signs made something present to the mind by acting on memory (221). The “memorial” culture of the Middle Ages made present the voices of the past, “not to entomb either the past or the present, but to give them life together in a place common to both in memory” (260). The task for the scholars, pedagogues and students of the humanities disciplines of the present is to incorporate the medieval rhetoric of the image into a teaching and learning process that enables users to create image objects generated from their own reservoirs of education and experience, and make these images, in Barthes words, “‘profitable’ to contemplation” (52) both inside and outside the classroom.
CHAPTER 3
VIRTUAL SPACE

Immersion: Living in Virtual Spaces

The purpose of this chapter is to analyze the importance of virtual spaces in the emerging new electrate environment. This first portion of this chapter will note the rise of virtuality of spaces like post-Civil War cycloramas, radio, film and television, and the exploitation of virtual space within new hypermedia environments. This chapter will also cover discussions by postmodern and medium theorists regarding the importance of incorporating virtual realities of cyberspace into all areas and levels of the curriculum. Finally, this chapter will note several correspondences between the virtual realities of cyberspace and the virtual spaces that were central to the mnemonic technique known in antiquity and the Middle Ages as the memory palace that will be crucial to re-designing rhetorical methods in the 21st Century humanities classroom.

Since the latter portion of the 19th Century, American culture has become increasingly immersed in virtual spaces. N. Katherine Hayles defines “virtuality” as the “perception that material [and now, digital] structures are interpenetrated with informational patterns (“Embodied Virtuality: Or, How to put Bodies Back into the Picture” Immersed in Technology: Art and Visual Environments). After the end of the American Civil War, the decades of the 1870's, '80's and ‘90's were marked by an upsurge of postwar nostalgia that lead to the creation of several large-scale, three-dimensional, 360 degree recreations of major battles like Gettysburg, Second Bull Run, and Atlanta. The Atlanta Cyclorama has been maintained and today’s visitors are able to enter a theater and take their seats in a revolving set of chairs that literally move the viewers through the major events which occurred during this famous 1864 battle.

Notable in relation to Hayles’s statements about virtuality above is the manner in which the Cyclorama restages the cataclysmic 1864 battle with a particular focus on what the designers considered certain major figures and events that needed highlighting in order to effectively
remake the narrative of this fight. While the stands in which the audience of the restored Cyclorama sits rotate 360 degrees, certain participants, locations, and occurrences in the fighting are spotlighted with lamps placed in the ceiling and a narrator’s voice details the spotlighted subjects’ importance to the overall course of the battle. The result is that this historical narrative is staged in a manner that leaves it shot through with “informational patterns” the Cyclorama’s designers considered crucial to the retelling of the Battle of Atlanta.

The Cyclorama display in Atlanta was restored in the 1980s and 1990s. The “performance” of the Cyclorama now includes canned sounds of explosions, horses, screams, becoming more like the virtual realities we encounter in films, on television and in what theorists, scholars, students and public discourse increasingly term “cyberspace”. Atlanta’s revamped, updated Cyclorama has been re-fashioned to be the sort of virtual environments the senses, intellects, and imaginations of its spectators are now immersed in every day.

Buffalo Bill Cody’s *Wild West* live-action shows of the late 19th and early 20th Centuries mythologized Cody’s life and the conquest of the Plains Indians by staging re-enactments of major, and often fictional, events from this period, complete with explosions, cavalry, cowboys and Indians. In a series of bizarre twists, chiefs like Sitting Bull would actually be hired to play themselves in re-stagings of Custer’s Last Stand, while Cody himself would take breaks from the show, leave for army posts and purposefully put himself in harm’s way so he could later “play” himself in stories of these episodes. Simulations like these anticipated the ever increasing immersion into virtual realities American culture has been experiencing since the appearance of photographic, phonographic, and cinematic technologies starting in the mid-nineteenth century.

In Kittler’s opinion, “the emergence of technological media c.1900 represents a decisive historical discursive caesura that alters structure, placement and function of cultural production” (xxxi). Since the period of post-war and post-pioneer commemorations in the late 19th and early 20th centuries, American culture has seen social, educational, political and commercial discourses move into ever more virtual environments and develop a “language of spectacle and simulation designed to be appropriate to the era” (Bakutman, 11). And presently, “Television,
[cinema], video cassettes, [DVD’s], [DVD] recorder/players, video games and personal computers all form an encompassing electronic system whose various forms ‘interface’ to constitute an alternative and absolute world that uniquely incorporates the spectator/user in a spatially decentered, weakly temporalized and quasi-embodied state” (105), in short - virtual reality.

Following upon the creation of the massive dioramas of the sort seen in the Atlanta cyclorama, cinema was the first technology of the modern age to capitalize not on “the emphatic dramaturgy of narrative temporality, but rather in a spatial exploration that complexly binds multiple perspectives and scalar shifts” (Jean Epstein as qtd in Bakutman 137). Even Buffalo Bill finished his career making films based on events like the massacre of Native American ghost dancers at Wounded Knee. Commercial filmmakers like D.W. Griffith capitalized on Civil War nostalgia and white racism to create a virtual rendition of the war in Birth of a Nation, producing a “sweep of landscape and panoramas of violent action seen in pages of novels [which] could not be convincingly transferred to the stage” (127) and a demonstration of the rhetorical possibilities within cinematic technology for staging cultural, historical arguments from a particular perspective, and re-writing the historical record. The history on display in Cody’s and Griffith’s films is ‘virtual’ in both its ability to transport audiences into alternate realities and fabricate fact.

Film camera technology created an entirely new kind of vision, whose extensions of the power of the human eye, as well as the “transmission of acoustic and visual elements” (Barilli vii), and thus the transformation of human consciousness itself, was also compellingly explored in the experimental films of Dziga Vertov and Stan Brakhage (Bakutman, 218). Commercial films capitalized upon, and experimental films commented on, the fact that “the logocentric space of the photographic image is thus superseded by the precarious movement of meaning and being in the space-time of cinema graphia” (Brunette and Wills, eds. 250).

The fluid three-dimensional space of film created a new arena for explorations of subjects and subjectivity itself. As film technology and production improved, cinema greatly enhanced its existence as a “plastic art of time and space” (Vidler 102). In 1920's films, production design is
seen to have improved until the architecture seen in these films, no longer simply inert, two-dimensional backgrounds, “now participates in the very emotions of the film - the surroundings no longer surround, but enter the experience as presence” (103). Advancing past the world of two-dimensional pictures and photos, filmmakers gained the ability to dominate and create every aspect of the ‘virtual spaces’ of their films, including “furniture, room, house, street, city, landscape, universe” (104).

Film always has and always will continue to further blur the line between illusion and reality made indistinct by the moving pictures of film images and production elements like set design and audio/visual special effects. In cinema, “the plastic is amalgamated with the painted, bulk and form with the simulacra of bulk and form, false perspectives and violent foreshadowing are introduced, real light and shadow combat or reinforce painted shadow and light. Einstein’s invasion of the law of gravity is made visible in the treatment of walls and supports” (104).

By the 1950s, film companies exploited the craze for UFOs, science fiction, and horror films with experiments in Three-Dimensional viewing experiences for their audiences that many films still make use of today. With horror films like The Tingler (1959), a Vincent Price scare vehicle, distributors took the ability of cinema to immerse viewers’ senses into virtual environments to another level by implanting vibrating devices behind certain audience members’ heads and activating them when the alien creatures featured in the film implanted their insectoid forms into the bases of their victims’ skulls.

In addition to the thrilling experience with special effects and alternate realities, cinema’s ability to warp and control the Fourth Dimension of time extended and deepened the spaces of filmic texts and added to the allure of their developing audio/visual vocabularies. This compelling new cinematic, virtual experience of phenomena like space and time achieves particular power through film’s and filmmaker’s abilities to connect exterior, sensual experience to interior mental processes. Even at its inception, the imaginary worlds of cinema were “not simply formalistic and decorative; [film’s] premise was from the outset psychological” (109).
Munsterburg notes the photoplay’s power to tell “the human story by overcoming the forms of the outer world, namely space, time, and causality, and by adjusting the events to the forms of the inner world, namely, attention, memory, imagination, and emotion” (as qtd in Vidler 106). The audial and visual spaces of film are able not only to focus audience attention, but also “reformulate the real into the imaginary, to fuse the physical and the mental,” leading to the disclosure of “‘the inner menacing or enigmatic meanings’ of everyday objects by simple close-up techniques and camera angles, light, shade, and space” which established “the poetic potential ‘of art to endow with poetic value that which does not possess it, to willfully restrict the filed of vision so as to intensify expression” (Louis Aragon as qtd in Vidler 109).

Audience engagement with film revolves around cinematic technology’s ability to poetically and rhetorically exploit “two paths of the spatial eye: the cinematic, where a spectator follows an imaginary line among a series of objects through the sight as well as the mind - diverse positions passing in front of an immobile spectator - and the architectural, where the spectator move[s] through a series of carefully disposed phenomena which he observe[s] in order with his visual senses” (119). The spatial and sensual disorientation that the audience of film experiences as the camera eye and recording studio ear move viewers through stylized cinematic spaces has become part of what O.B. Hardison calls the “grammar” and “rhetoric” of cinema.

In Hardison’s opinion, the grammar of film includes the “cut, fade, and dissolve, and long shot, medium shot, and close up, and the rhetoric of film includes voice over, musical continuo, unusual camera angles, trick photography , and special sound and lighting effects” (Entering the Maze 202). Hardison uses Sir Laurence Olivier’s film, Henry V (1946), as an example of the way application of the aesthetic insight and rhetorical understanding made possible by film technology is exploited in the numerous stylistic shifts of Olivier’s piece, wherein a “relatively straightforward, highly unified play has been converted into a mosaic of different styles presented in a surrealistic framework of space and time” (193).

More recent films like 300 (2007), have taken audiences further into the aesthetic and rhetorical possibilities of stylized cinematic spaces by placing actors in completely virtual
environments. The virtual space of *300*, populated by actors whose own bodies have undergone physical and special effects enhancement, presents audiences with a hyper-sensual film whose surroundings and characters visually stage the arguments about male/female, east/west, loyalty/dishonor, courage/cowardice embedded in the film’s very ahistorical narrative. In addition, this picture was particularly popular in IMAX theaters which, like the post-Civil War cycloramas, immersed viewers in a three-hundred-sixty degree retelling of the epic battle of Thermopylae. *300* is only the most recent and fully realized of a long list of films which have forced audiences to “temporarily inhabit worlds composed of cognitive distortions and poetic figurations of our own social relations” (McCaffrey as qtd. in Bakutman 11).

In studying “the language of new media,” Lev Manovitch has pointed out several important features of the audio/visual approach to representation refined in television and film which have been absorbed and extended by developing digital and computer technologies. He first notes representation as simulation, noted in “various screen technologies such as post-Renaissance painting, film, radar and television,” where the screen is “a rectangular surface framing a virtual world that exists within the physical world of the viewer.” Technologies of new media are now seeking to advance the potential for simulation to “immerse the viewer completely within a virtual universe” that represents just the latest in virtual space development that Manovitch claims includes Baroque Jesuit churches, the 19th Century panoramas described earlier and of course, 20th Century movie theaters (16).

Manovitch further notes that the convergence of media and computers creates “Teleaction - opposition between technologies used to create illusions (fashion, realist painting, dioramas, military decoys, film montage, digital compositing) and representational technologies used to enable action, that is, to allow the viewer to manipulate reality through representations (maps, architectural drawings, X-Rays, telepresence).” In addition, new media create an opposition between “representational technologies (film, audio, video, magnetic tape, digital
storage formats) and real-time communication technologies (telegraph, telephone, telex, television, telepresence).”

The visual and aural illusionism which combines “traditional techniques and technologies that aim to create a visual [and audial] resemblance of reality - perspectival painting, cinema, panorama, [radio, music, sound production techniques], etc.,” has been absorbed into simulation, a quality which has been and continues to be explored in film and described by Manovitch as “various computer methods for modeling other aspects of reality beyond [simply] visual appearance - movement of physical objects, shape changes occurring over time in natural phenomena (water surface, smoke), motivations, behavior, speech and language comprehension in human beings” (16).

Manovitch notes we are in a technological transformation of rare importance, pointing out that “just as the printing press in 14th Century and photography in the 19th Century had a revolutionary impact on the development of modern society and culture, today we are in the middle of a new media revolution - the shift of all culture to computer-mediated forms of production, distribution and communication” (19). It is crucial for teachers of the humanities to embrace what Manovitch calls the “two opposing goals of new media design: immersing users in an imaginary fictional universe similar to traditional fiction and giving users efficient access to a body of information (search engine, web site, on-line encyclopedia)” (16) and turn both trajectories to the service of a new method for thinking about and with rhetoric capable of immersing students in virtual spaces suited to the processing and communication of information in a humanities, and inevitably a curriculum-wide, academic setting.

Frances Dyson characterizes virtual reality technology as the “accumulation of the auditive technologies of the past and a realization of the telepresence and interactivity first offered by telephony, a computation of the inscriptive strategies of the phonograph and tape recorder, an appropriation of the disembodied ‘presence’ of radio, an embrace of film sound’s spatiality and an instantiation of the hyperreal sound effect present in all auditive media” (“When is the Ear Pierced? The Clashes of Sound, Technology and Cyberspace” Immerged in Technology
Manovitch adds that computer-based illusionism, rather than utilizing the single dimension of visual fidelity, constructs the reality effect in a number of dimensions, “of which visual fidelity is but one” (182).

The absorption of visual and aural representations found in illustrations, paintings, comics, television and cinema into the electronic virtual spaces of video, computer graphics and computer games represent an important shift in new media. The creation of virtual realities for social, professional, commercial and entertainment purposes “speaks to the desire to see the space of the computer, and to further figure it as a space one can move through and thereby comprehend” (Bakutman 200). Bakutman notes, “whether Baudrillard calls it telematic culture or science fiction writers call it the Web, the NET, the Grid, the Matrix, or, most pervasively, cyberspace, there exists the pervasive recognition that a new and decentered spatiality has arisen that exists parallel to, but outside of, the geographic topography of experiential reality” (105).

The holistic, simultaneous use of image, sound, and text in cyberspace is different from the kineticism of cinema because it “moves and changes. It reaches out to surround and absorb the consumer, creating an artificial reality that forces the consumer to confront the increasing irrelevance in modern culture of the distinction between the real, in the sense of that which occurs naturally, and the artificial, in the sense of that which is human artifact” (21).

Along with this substitution of “‘iconic representations’ of reality for ‘the real’” (Mattlow 172), Erica Mattlow notes computer interface enables us “to visualize text in three and four dimensions, moving around text as if it existed in a physical space imbuing the words we use with a particular sense of location and creating information environments that enable us to negotiate with textual information from within a range of different dimensional, virtual perspectives” (173). This sense of space is, of course, a fabrication which is virtually a space.

Bakutman characterizes cyberspace as a reduction of “the infinite abstract void of electronic space to the definitions of bodily experience and physical cognition grounding it in finite and assimilable terms like ‘web’ and ‘net.’ In Bakutman’s opinion, this “phenomenologically relevant other space of information circulation and control” (145), is “an
abstraction which, diegetically and extra-diegetically, provides a narrative compensation for the loss of visibility on the world, the movement of power into the cybernetic matrices of the global computer banks, and the corresponding divestiture of power from the subject.” The imagined planes of cyberspace “enable the activity of spatial penetration and thus produce the subject’s mastery of a global data system” (143).

Science-fiction films like *The Matrix Trilogy* have already fantasized about the dangers of this new virtual reality, in which the subject’s “objective” body remains in the real world, while a “phenomenal” (Bakutman 187) body, or avatar, is projected into cyberspace, where users interface with a completely spatialized visualization of all information in global information processing systems. The virtual realities users encounter are a combination of the synaesthetic, direct sensory engagement of the sort found in video games and theme parks and the narrative qualities of literature, television, video games and film. Bakutman notes Jameson’s opinion that “this latest mutation of space ... has finally succeeded in transcending the capacities of the individual human body to locate itself, to organize its immediate surroundings perceptually, and cognitively map its position in a mappable external world” (225). This fusion of kinesis and interactive narrative in cyberspace is a crucial feature of new media that the humanities of the 21st Century must address in scholarship and incorporate into classrooms.

Synaesthesia, a sensual, “totalized rather than compartmentalized activity of perception,” has become the rule of perception in virtual reality and is problematic because scientific knowledge and the paradigm of learning visually through textbooks “shifts the center of gravity of experience, so that we have unlearned how to see, hear, and generally speaking, feel, in order to deduce from our bodily organization and the world as the physicist conceives it, what we are to see, feel, and hear” (Bakutman 176). Synaesthesia produces an “active bodily engagement with a virtual world” that a user moves through, involves other senses besides vision, and accurately simulates “physical objects, natural phenomena, anthropomorphic characters, and humans” (Manovitch 182).
It is absolutely essential for any redesign of humanities pedagogy to address this issue because the “imploded arenas of the datascape become the new phenomenal ground for bodily awareness. It is the experience of the body that operates to center the subject, which is why the body must serve as the locus for any interface with terminal reality” (243). And, as Hayles has noted, “one cannot experience cyberspace,” an arena of discourse with its own logic and geography, “except through the physical senses of the body” (230 Wertheim).

However, the physical immersion of the senses into the virtual realities of cyberspace goes far beyond our sensual experience with the physical world. The laws of the physical world are discarded and the subject’s movement through and control of the virtual realm, as seen in online gaming environment like Ultima, Riven, and Halo, as well as films like *The Matrix*, becomes almost god-like. Bakutman notes the point of view of an online gamer, much like the cinema’s camera eye,

> can begin at an encompassing angle high above the action, then move smoothly down, ease beneath it, and rotate and track to allow a hurtling vehicle toward its destination. This is not a trajectory associated with the physical experience of a human perspective and represents a kind of ecstatic terminal vision, a kinetic transcendence of bodily limitations. The human appropriates the space through the exercise of a powerful, nearly omnipotent gaze. (218)

Users of virtual spaces virtually fly through clusters of information rendered in a three-dimensional environment that provides content designed to enable the connection between physical and conceptual spaces their own minds. The revelations afforded by interfaces with Windows, desktops, websites, virtual spaces, electronic files, searches, navigation, surfing links, Multi-User Domains, and various online cybergames take place in simulated environments where the user’s interaction is no longer a readerly one. “Doing” replaces “Reading,” and “knowledge acquisition takes place in an active, generative fashion as opposed to passive, receptive fashion” (Ulmer *Heuretics* 49).

Regarding humanities research that seeks to produce new models of thought and apprehension suitable for cyberspace, Manovitch writes, “If there is a new rhetoric or aesthetic
possible here, it may have less to do with the ordering of time by a writer or an orator, and more with spatial wandering. The hypertext reader is like Robinson Crusoe, walking across the sand, picking up a navigation journal, a rotten fruit, and instrument whose purpose he does not know, leaving imprints like that, like computer hyperlinks, follow from one found object to another” (78).

The inhabitants of cyberspace’s virtual realities “put on electronic identities like cloaks [or habits]” (Haraway “Cyborg Manifesto”) and immerse themselves into not only the acoustic, visual and performative (in terms of delivery, pronunciation, facial expressions, gestures) elements of cinema, but also, remembering that material structures of cinema and all virtual realities - indeed, all conceptual, social and material spaces - are interpenetrated with informational patterns, the figurative and narrative forms of literature, film and television as well. Ulmer notes that the power and allure of television and film lies in their well-developed abilities to organize information narratively, “ordering interaction and sound image with oral and pop culture forms, extending simple forms like the anecdote, joke, proverb, riddle, and legend into now functions of classification and evaluation” (Teletethy ix).

This practice has now been extended into the virtual realities of cyberspace. Information and simulation work together through narratives wherein users play roles often derived directly from the events and characters of popular movies and television shows like Star Wars, Spider-Man, The Godfather, and The Sopranos. The designers and users of virtual worlds are cinematographers, architects and actors (Manovitch 76), and narrative is the linking concept that gives the structured time and temporal spaces of these virtual worlds dynamism of the sort found in the fine arts and the structure experienced in the performing arts.

The virtual realities of computer games embody the essence, or zeitgeist, of cyberspace that the humanities must embrace in order to redesign its pedagogy in order to keep pace with the burgeoning influence of cyberspace. The word “cyberspace” is derived from the Greek, “kybernetikos,” defined as “the art of the steersman,” and game environments unfold in terms of narrative action and exploration on the part of the player. Manovitch notes, “rather than being
narrated to, the player herself has to perform actions to move the narrative forward,” and “exploring the world, examining its details and enjoying its images is as important for the success of games such as Myst and its followers as progressing through the narrative” (247). The player navigates virtual reality and thus “steers” the narrative of a game or a search through a database in a particular direction.

In discussing their work, “Dancing with the Virtual Dervish,” Diane J. Gromala and Yacov Shrir suggest the virtual body that a user occupies and directs in order to steer a narrative is itself an expressive, textual, and therefore rhetorical object itself. They note the “virtual body becomes an immersive, nonlinear book, a text to be read, an architecture to be inhabited .... The Dancer exists both as representations within the virtual environment and as performer in the physical performance space .... Virtual technologies allow us to manipulate, externalize, distort, and deform information as well as the experience of the body [and] augment and extend possibilities creatively and experientially, spatially, visually, sonically, and cognitively” (Digital Desires 283).

Scott Bakutman declares, “Cyberspace is clearly a paraspace as Samuel Delaney has defined the term” (157). For Delaney, paraspace is “the space in which the character’s language, rationality and subjectivity are broken down and deconstructed.” This deconstruction and analysis of rationality and subjectivity is precisely the function of rhetoric. According to Paul de Man, “Rhetoric radically suspends logic and opens up vertiginous possibilities of referential aberration” (qtd in Bakutman 176), and cyberspace offers a powerful new forum for exploring these possibilities.

Bakutman points out that while writing and speaking about cyberpunk fiction like William Gibson’s Neuromancer, “Delaney has begun to develop a notion of science fictional space that exists parallel to the normal space of the diegesis - a rhetorically heightened ‘other realm’” (157). In the interactive, narratively-organized, online para (or virtual) spaces similar to the cybernetic domain of Gibson’s novel, the “different ontological realm of paraspace is
experienced by the characters within the diegesis .... Hypertechnologized arenas of cyberspace [are] marked by a rhetorical excess which describes - enacts - [experiences]” (Bakutman 176).

**Crisis: Questions for the Humanities**

The question now for humanities scholars and pedagogues seeking to merge the database and the narrative into a new form suitable for educational enterprises is: how can new abilities to store, classify, index, link, search, and retrieve data lead to new narratives, and what artistic and theoretical traditions can the designers of navigable educational and professional spaces draw upon to make them more interesting (Manovitch 264)? Because the navigable virtual realities of cyberspace are such subjective spaces, “responding to the subject’s movement and emotion” (269) and function as mirrors to a user’s subjectivity at sites such as Facebook and Myspace, they fall firmly into the domain of rhetoric. Rhetorical approaches of the 21st Century must achieve an “integration of representation and of signifying systems, with the enhanced perceptual and informational field of cybertechnologies” (Tenhaaf “Mysteries of the Bioapparatus” Digital Desires 286).

The problem with trying to achieve a “narration of new technological modes of being in the world” (Bakutman 8), made necessary because cyberspace has become a conceptual space that shapes ideas we have about things and their relationships, a social space that patterns social relationships both mentally and physically, and a material space of socio-political environments across which attitudes and actions are played out (Jos Boys, “Windows on the World?: Architecture, Identities, and New Technologies” Digital Desires 125), lies in the fact that “with every decade popular education falls farther behind technology (Boorstin The Image: A Guide to Pseudo-Events in America 55). O’Donnell characterizes this challenge as an effort to “balance old models with new modes of behavior that exploit the possibilities of the new environment effectively without disorienting us so completely that we forget who we are” (Avatars of the Word 13).
Unfortunately, as Jerome McGann has noted in *Radiant Textuality*, “digital technology used by humanities scholars has focused almost exclusively on methods of sorting, accessing, and disseminating large bodies of materials, and on certain specialized problems in computational styles and linguistics” (xii). Only recently have humanities scholars and pedagogues begun to engage “questions about interpretation and self-aware reflection that are central concerns for most humanities scholars and educators” as they relate to the virtual realities of cyberspace. McGann urges, “we must expand ‘interpretational procedures’ of digital technology to move it beyond instrumental service” (xii) because “new textual environments have yet to develop operational structures that integrate archiving and editorial mechanisms with critical and reflective functions at the foundational level of their material form, that is, at the digital/computational level” (17). Thus, the humanities are left facing the task of discovering how digital tools can “be made into prosthetic extensions of that demand for critical reflection” (18).

Building on the work of Gregory L. Ulmer, Kathleen Welch, in her work *Electric Rhetoric*, notes that students used to interfacing with the rhetoric of television and the film screen, as well as the computer, are “literate” in new ways (4). Ulmer himself calls this new interface with communication, information and entertainment technologies, “electracy.” Relevant to the study and teaching of the humanities in the 21st Century is the fact “traditional literacy does not work anymore because intersubjective and intrasubjective communication has changed drastically for many reasons, one of which is the change in communication technology that has permeated the last 100 years, allowing electronic forms of communication to reshape literacy,” and, therefore, subjectivity itself (30).

The humanities must redesign rhetorical methods to incorporate the “seductiveness of electronic discourse ... embedded in a merger of written, aural, and visual structures of articulation” (Welch 7). Lev Manovitch notes, “we are no longer interfacing to a computer, but to culture encoded in digital form” (69), and the humanities must keep pace with this transformation because “the language of HCI [Human Computer Interface] already represents a
powerful cultural tradition, a cultural language offering its own ways of representing human
memory and experience. This language speaks in the form of discrete objects organized in
hierarchies (hierarchical data system) or as catalogs (databases) or as objects linked together
through hyperlinks (hypermedia)” (72).

Gregory L. Ulmer points out in *Internet Invention*, “general education writing courses,
staffed by English departments, serve at least the following consensus needs, listed in order of
current priority - methods for using the language to learn specialized knowledge; practices of
rhetoric and logic required for citizenship in a democratic society; models of self-knowledge for
living the examined life” (5). English Departments will still meet these needs, articulate them
differently because, as Ulmer continues, “the emerging predominance of the image as technology
and culture is a problem of society, which is stated in disciplinary terms as the ‘spectacle’ - the
convergence of image and reality into a virtual condition of simulacra. A proper task for English
departments in particular or Arts and Letters programs in general, is to develop rhetorical and
composition practices for citizens to move from consumers to producers of image discourse” (6).
The need for such development is pressing because “the infinite mutability, the seemingly
endless permutations and rotations of digital constructions, the speed of virtual travel within the
image, not to mention the complexity of the networks of communication themselves, all lead to
the suspicion that some transformation in subjecthood is under way” (Vidler 242).

If English departments invent new practices of writing and critical thinking native to
hypermedia, they must consider the “correspondences among the features of digital hypermedia,
the associative logic of creative thinking and the aesthetics of popular culture” (Ulmer *Internet
Invention* xiii). Inventing these practices for what Ulmer calls the “electrate virtual sphere” (8)
will align “digital hyperlinked media to associative ‘lateral’ reasoning described in studies of
creative thinking and the ‘dreamwork’ of entertainment narratives” (6) described earlier in this
chapter and keep pace with technology’s influence on our professions and lives. Unfortunately,
as Ulmer points out, “As a civilization, we have preserved the memory of the poetic and we
continue to sometimes to honor its diviners without knowing why or what purpose might be served by the dimension of language (the remainder) that they operate” (4).

The dreamwork narratives of art and entertainment, which audiences derive pleasure from by reading in terms of condensation (which in literary terms can be defined as metaphor), displacement (metonymy), reflection, and revision (association) (Spivak, *Of Grammatology* xlii), will serve as tools for English departments undertaking these efforts. Ulmer notes, “Although the academic discipline of rhetoric, and English departments in general, have remained Aristotelian and ignored Diogenes, the arts and letters community (artists, poets, philosophers) have been inventing institutional practices that accord with the technologies of the emergent apparatus” (38). Ironically and tragically, the aesthetic reasoning that dominates popular entertainment and the fine arts, and with which the humanities seeks practical correspondences, is “not taught is the schools after about the third grade” (4).

Because education since the period of Francis Bacon’s pervasive influence has separated memory, reason, and imagination from one another, scholars and pedagogues are faced with the challenge of balancing “old models with new modes of behavior that exploit the possibilities of the new environment effectively without disorienting us so completely that we forget who we are” (O’Donnell 13). The virtual realities of cyberspace, the emerging platform for social, professional, and educational discourse, have already been described in this chapter as amalgamations of the spatio-temporal, audio-visual, altogether sensual spaces that have circulated in western culture throughout its history and whose importance and presence have only been accelerated with the advent of computer technology.

Manovitch notes in his preface to *The Language of New Media*, “one effect of the digital revolution is that avant garde aesthetic strategies came to be embedded in the commands and interface metaphors of computer software. The avant garde became materialized in the computer.” Furthermore, “The avant garde move to combine animation, printed texts and live action footage is repeated in the convergence of animation, title generation, paint, compositing and editing systems into all-in-one packages” (xv). Therefore, the humanities must examine the
potential of aesthetic pleasure of the sort experienced by readers of literature, viewers of artwork, and the audiences of theater, film, and television, “not as a flashing exercise of an intuitive faculty, but as a process of intelligence that deciphers and reasons, enraptured by the difficulty of communication” (Eco *Chaosmos* 81), and able to merge the database and the narrative into a new rhetoric.

For this process to be successful, Jerome McGann feels that understanding the structure and potential of digital space “requires disciplined aesthetic intelligence” in terms of the textual models and codes being assimilated into computer technology. For McGann, “digital codings summon us to new investigations into our textual inheritance,” and, of these, he considers the “poetical” to be the most advanced, powerful and useful (*Radiant Textuality* xi) for purposes of inculcating students with a “disciplined aesthetic intelligence” they can deploy both inside and outside the classroom.

Even before the upsurge of new media critical theory, avant garde critics spent decades seeking ways to merge critical thinking and aesthetic experience. In *Beyond Interpretation*, Vattimo calls Derridean deconstruction “an exemplary way of practicing philosophy as hermeneutics (‘poetics’), namely as an encounter with and listening for new metaphorical systems, and since this way of practicing philosophy offers no justification for its own preferability, ultimately it is itself a ‘poetic’ and creative proposal of a new paradigm, of a new metaphoric language” (99) and further notes that deconstructive meditation “increasingly resembles a performance, the effect of which is not easily distinguished from an aesthetic appreciation” (101).

If, as Derrida declares, “Imagination must be awakened” (*Of Grammatology* 217) in the curriculum, particularly by enabling students to use the power of the narrative, fable, drama, allegory, and pun as tools for critical thinking in in disciplines as diverse as physics, mechanics, mathematics, theology, politics, medicine, music, painting, logic, ethics, commerce, and law (Hardison *Entering the Maze* 146), in a manner as pervasive as that currently exercised by the form of the printed text book, the humanities disciplines must take as their task an application of
the phonographic, cinematic, and cybernetic technologies discussed above to the representation of knowledge (Ulmer *Teletheory* 134). Manovitch calls the narrative logic and virtual spaces of cinema the “toolbox of the computer user” (86), and notes that “just as in cinema, ontology is coupled with epistemology: the world is designed to be viewed from particular points of view. The designer of a virtual world is thus a cinematographer as well as an architect” (82) and the goal of research into electronic rhetoric is “to encode ‘cinematographic expertise,’ translating ‘heuristics of filmmaking’ into computer software and hardware” (86).

O’Donnell feels that exposing students to an electronic rhetoric that translates the goals of arrangement, style and delivery into a new technological format far beyond print will undoubtedly disorient them, but will also “energize them, and inculcate in them a taste for the hard disciplines of seeing and thinking” (123). He further notes, “heuristic quality of life in cyberspace and the ease with which multiple paths can be created will let us create such opportunities with ease and indulge in the high-spirited play of manipulating the tokens of the past in as many different ways as we can imagine” (137).

O’Donnell also cites Richard Lanham, author of *A Handlist of Rhetorical Terms*, who states, “electronic media show us how to use our communicative skills, self-consciously in an environment in which we do not seek to possess truth but to create it collectively” (149). If, like the humanists of the Renaissance who guided the transition within the university from manuscript to print technology, humanities scholars are able to use new media technology to link the verbal and quantitative (150) in effective, practical new ways, the result will be a “renovated curriculum,” not in terms of the core disciplines, but the “core techniques” used to teach them (149).

Ulmer characterizes video, audio and their synthesis in cyberspace as “prosthetics of inventive/euretic thinking just as literacy is the prosthetics of hermeneutics” (*Applied Grammatology* 42), and the humanities must “think an apparatus in which there is more than one way to listen, more than one way to extend the intellectual senses - hearing and sight, knowledge from a distance - by means of audio-visual technology” (*Teletheory* 160). A re-vitalized
rhetorical method that effectively incorporates these “prosthetics” will enable teachers and students to, in Ulmer’s words, “compose a diegesis - an imaginary space and time, as in a setting for a film - that functions as the ‘places of invention’” (Applied Grammatology 48). Ulmer uses the word “heuretics” to describe the fusion of critical interpretation and artistic experimentation that “adds to critique and hermeneutics a generative productivity of the sort practiced in the avant garde” (xii). The heuretics of a new “electracy” can “demonstrate the fluidity and complexity of knowledge in any culture that the rhetoric of the ‘table’, [list, page, and line] denies” (Heuretics 57).

Ulmer stresses in Applied Grammatology, “the multichanneled interactivity of hypermedia provides for the first time a machine whose operations match the variable sensorial encoding that is the basis of intuition, a technology in which cross-modality may be simulated and manipulated for the writing of an insight, including the interaction of verbal and non-verbal materials and the guidance of analysis by intuition, which constitute creative or inventive thinking” (140). A technologically refined liberal arts curriculum that capitalizes on these features is essential because “producing discourse in writing, speaking, and other ways is central to developing considered action in the newly emerging constructions of private and public worlds and about how intelligence, sensitivity, and emotional well-being are cultivated by advancing our awareness of them” (Welch 73).

Welch acknowledges the necessity of encoding what Manovitch calls “cinematic ways of seeing the world, structuring time, telling a story, linking experience” (prologue 1) into a new rhetoric suited to the virtual realities of cyberspace, and points out that ancient and medieval accounts of composing do present us with dramatic alternatives to modernist accounts, and hence, they can serve as sources for understanding the workings of human communication in non-modern ways” (Electric Rhetoric 34). Such alternatives are necessary because, as Manovitch states,

Interfaces developed for the computer in the role of calculator, control mechanism, or communication device are not necessarily suitable for a computer playing the role of
cultural machine. Conversely, if we simply mimic the existing conventions of older cultural forms such as the printed word and cinema, we will not take advantage of all the new capacities offered by the computer: its flexibility in displaying and manipulating data, interactive control by the user, ability to run simulations, etc. (93)

Mimicry will not suffice because, as Manovitch notes, the image interface of hypermedia, distinct from the viewers experience with cinema, becomes “a portal into another world, like an icon in the Middle Ages.... Rather than staying on the surface, we expect to go ‘into’ the image” (290).

Resolution: Sense and Emotion in the Memory Palace

While seeking ancient and medieval relays for developing a rhetorical “performance,” a “continuous process of creation, of reconstituting and transferring elements not in any mechanical sense, but in an imaginative way that allows a latitude, an autonomy, a ‘play’ element” (Heuretics 116), new media and postmodern scholars have turned increasingly to studies of memory. Ulmer notes that “memory will be the point of inception of this change, as people, interacting with electronic technology, come to experience their conduct differently” (Teletheory 133).

A rediscovered appreciation of memory’s importance to the liberal arts, and rhetoric in particular, is an essential tool in the humanities disciplines’ efforts to keep pace with a computer media revolution that not only “affects all stages of communication, including acquisition, manipulation, storage and distribution; it also affects all types of media - texts, still images, moving images, sound, and spatial constructions” (Manovitch 19). Memory’s usefulness lies in its status as

a specific technology, a mechanism, a material and semiotic process subject to artifice and alteration. More specifically, memory takes the form in classical [and medieval] rhetoric of a dialectic between the same modalities (space/time), the same sensory channels (visual/aural), and the same codes (image/word) that underlie the narrative/descriptive boundary. That is, classical memory technique is a way of reconstructing temporal orders by mapping them onto spatial configurations (most notable, architectural structures, with various loci and topoi, or ‘memory places’ inhabited by striking images and sometimes even words); it is also a way of
mapping oral performance, an oration from memory, onto a visual structure. (Mitchell
*Picture Theory* 191)

For W.J.T. Mitchell, memory is “an imagetext, a double-coded system of mental storage
and retrieval that may be used to remember any sequence of items, from stories to set speeches to
lists of quadrupeds” (191) and this imagetext structure of memory “seems to be a deep feature
that endures all the way from Cicero to Lacan to the organization of computer memory” (193).
Furthermore, as Ulmer notes in *Internet Invention*, “if memories are one individual’s, their
associations, reflections, and interpretations extend far beyond the personal. They spread into an
extended network of meanings that bring together the personal with the familial, the cultural, the
economic, the social, and the historical.” Thus, “memory work makes it possible to explore
connections between ‘public’ historical events, structures of feeling, family dramas, relations of
class, national identity, and gender and ‘personal’ memory .... outer and inner, social and
personal, historical and psychical, coalesce; and the web of interconnections that binds them
together is made visible” (87).

As inheritors of the tradition of mnemonic arts built on a foundation of applied “poetics”-
defined by Eco as the study of the structural mechanism of given text which possess self-
focusing qualities and capacities for releasing the effects of ambiguity and polysemy - medieval
thinkers could not conceive, explain, or manage the world without inserting into the framework
of an Order, a mental virtual space providing an unlimited chain of relations between creatures,
people, places, texts, and events. This mnemonic space, or memory palace, functions as a
mechanism “which permits epiphanies, where a thing becomes a living symbol of something
else, and creates a continuous web of references” (Eco *Chaosmos* 7). Memory was conceived of
as a *templum spiritualis*, where a student listened to the “music of the heart,” the “associational
symphony of all matters in one’s inventoried and inventive memory” (Carruthers *Craft of
Thought* 86).

This spatially and sensually oriented technique, functioning as both “inventory” and
“invention,” was carried by Christian scholars and philosophers into the Middle Ages in an
attempt to examine the artifacts of the pagan past, including art and rhetoric, to see if a different, in their case Christian, answer might “be born from a new combination of the pieces” (Eco 9). Students were trained to identify connecting codes from within spacial-temporal mental continua of their own designs and the architectural spaces they inhabited, in which everything carried “the initial right of association” (44). This notion of immersion into virtual spaces in students’ surroundings and in their own thinking minds enjoys several correspondences to the virtual environments we and our students circulate in today. As Michael Camille notes in *The Gothic Idol and Ideology: Image-Making in Medieval Art*, “Guy Debord’s society of the spectacle did not suddenly come about in the 20th Century; its roots lay in the multiplication of image investment, in altars, statues, paintings, and windows that cluttered the medieval church, where the community displayed itself to itself” (218) and used these architectural displays, along with the idea that images could live, move, and breath in one’s memory, as building materials for creative meditations rendered as virtual spaces in their memory palaces.

Camille continues, noting, “‘environments’ and ‘installations’ are not an invention of postmodernism, but were enjoyed throughout the Middle Ages as the very highest form of play” (247). These spaces of “fertile ambiguity” (Eco *Chaosmos* 65) and “polydimensional reality” (73) overcame divisions between sense and reference, and represented the true nature of discourse, a concept noted by Barthes to have derived from the Latin *dis-cursis*, the action of “running here and there, comings and goings, measures taken, plots and plans” (Ulmer *Teletheory* 167). The *ars memoria* taught students to memorize and produce discourse “through a technique of impressing ‘places’ and ‘images’ on memory” (Yates xi). Like Dante in his otherworldly journey, students explored, and learned to navigate discourse as virtual terrain which simultaneously engaged their emotions, senses, and intellects.

The basic model of memory with which medieval scholars and artists worked was that memory was a repository, a treasure-house. As [author getting it wrong] notes,

things not present to the senses can be retrieved from where they are stored in the memory so that we can think about - or ‘with’ them. The Greek Simonides is credited
with having developed a parlour trick which enabled him to recall a long list of unrelated things suggested to him, by mentally locating them in objects about the room. He then looked inwardly at the 'place' where he had put each object and the object presented itself to his recollection. (43)

Ulmer notes that what we see here is an “activation of memory in an imaginary walk through the places with one image [or a cluster of images related to one concept] at each site, spaced regularly along the way” (*Teletheory* 135).

Students used their own autobiographies and/or fantasies as the grounds or medium with which to think. The combination of familiar associations (emotional investments) with familiar settings could serve to bind images and the ideas they evoked “in place” (*Teletheory* 135). As I already noted in Chapter One regarding the usefulness of memory palaces to new rhetorical methods, Ulmer emphasizes,

> The most extraordinary feature of mnemonics and the most relevant for academic discourse in the age of television is that whatever a medieval student was thinking about, learning - law, virtues and vices, theology, the entire curriculum - it was done by a walk through the childhood home, or along the streets of a hometown, or a great public building, finding in each room or next to each location an image, either extreme aberration or intimately familiar. (136)

The locus communis, the “place of knowledge,” as it was understood in rhetorical training, held importance for Greek, Latin and medieval rhetoricians because they needed to be able to marshal arguments in an orderly and purposeful way without the aid of notebooks, outlines, tables, lists and other accoutrements of thinking and learning “by the book.” Giw tells us, “This was achieved by drawing from a stock of what were called ‘topoi’ [Greek] or ‘loci’ [Latin], learned partly in the schoolroom and added to with experience” (Evans 130). Evans continues, “From mnemonic ‘places’ topics [topoi/loci] derive their name and the term locus and its fellows thus covered stories, illustrations, examples, similitudes, analogies, and stock principles or arguments, understood as ‘places’ where arguments start” (131-132).

As these techniques developed and students were responsible for ever more realms of information, these memory palaces became, in the words of Frances Yates, the “custodian of all
parts of rhetoric” (5). Students had to exercise their rhetorical skills of invention, arrangement, style, delivery and, yes, memory, to the utmost in order to visually and aurally connect their imaginations, emotions, and experiences to their educations. As students’ memory palaces became “stretched improbably in time and space” (Evans 48) to the extent seen in Dante’s sprawling *Commedia*, they had to exercise an astonishing degree of visual, aural, and tactile precision in detailing their *loci communi*. The rules for building memory palaces grew out of “the artistic feeling for space, lighting, distance” (Yates 117) we appreciate now in photography, cinema, and hypermedia.

Not only were practitioners of these mnemotechniques concerned, like architects and cinematographers with issues of size, shape, characteristics, number, order, distance, lighting, angle, etc., but with sensations and emotions as well, making them immersive, synaesthetic environments of the sort we increasingly interface with every day. Rhetorical invention in this environment is not “a process of the ‘intellectual’ soul, but primarily of the ‘sensory-emotional’ one, dependent upon the images stored in memory and the effectiveness of the heuristic structures in which they have been laid down there” (Carruthers *Book of Memory* 200).

The genius of Dante Alighieri’s *Commedia* lies in his ability to re-hear, re-see, re-feel, and therefore, re-organize knowledge, particularly in *Inferno*, into a narrative that journeys through memory places which are not only “‘eye-catching’ ... but also a fully realized sensory experience that includes recreated sound (screams and cries and battle trumpets), taste (chiefly blood and crushed bone) and odor (vomit and blood but also crushed violets) and touch (chiefly pain)” (Carruthers *Craft of Thought* 148). Margaret Wertheim calls the space of the *Commedia* “thrillingly real. Slogging through the foetid ditches of the Malebolge or trekking up the crisp terraces of Purgatory, you feel as if you are really there. You can almost smell the stench of the muck in Hell, hear the choraling of the Angels in Heaven” (51). Furthermore, Dante makes careful use of “the madman’s wild variation of mood and behavior” (giw 162) as he makes his pilgrimage through the *loci* of the *Commedia*. Like the *infelix* and *insanus* madman, Dante’s pilgrim avatar “veers from sadness to merriment; now he is depressed; now he is elated; now he
is drunk; now he is starving; now the accused; now the guilty; he jokes; he plays; he sighs; he longs” (162).

Emotion and sense are essential for making firm impressions on the mind (Carruthers Book of Memory 10). Mind and body become text in the ars memoria. Carruthers examines the understanding of and its construction of the human body “essentially as a book. Training of memory required bodily affliction, since trauma (either as bodily or mental pain) was understood to ingrain the material to be remembered in the mind. Such affliction, figured as anxiety or vexation made the body quite literally the site for memory” (Frese and O’Keefe xii). Philosophers from Socrates to Nietzsche, and studies of neuropsychology and medieval memory “agree memory images of whatever sort require emotional coloring to be laid down strongly for secure recovering and these memories do not exist discreetly, but in ‘circuits’ or networks” (Frese and O’Keefe 10).

The rhetorical role of emotion and violence in the art and pedagogy of the Middle Ages revolved around the concept of the punctus, a piercing, puncturing of the body and the heart in order to, like the “punctuation” of a written text, “point” the production or learning of text in a particular direction to create a “remembering” of “an affective, recreative sort” (Frese and O’Keefe 2). Punctus occurs when there is a match between a signifier in a scene, image, or text and a scene in one’s memory (Ulmer Internet Invention 45). Trauma and joy were pragmatically used in medieval mnemontechniques “to produce stable memories in textualized bodies” (xiii). The anxiety of grief, fear, shame, love, hope and the ability to connect intensely anxious personal emotions and bodily senses to learned material “locates you in your reading place” (21), and in the words of St. Anselm, allows a student meditating on the Bible to “taste the goodness of your redeemer ... chew the honeycomb of his words, suck their flavor which is sweeter than honey, swallow their wholesome sweetness, chew by thinking, suck by understanding, swallow by loving and rejoicing” (Clanchy 217).

Jody Enders has extensively studied how “pain was always part of medieval aesthetics” (The Medieval Theater of Cruelty 27), particularly in legal matters, education, and mystery play
productions. Memory (memoria), “a mental space in which violently discovered ‘truths’ of invention were visualized and deceptively authorized through detailed visualizations as virtual performances,” was translated into action (actio), “the means by which real bodies with real voices translated violent imagery of an inventional memory into the speech and action of the courtroom, the classroom, and the stage” (5). Enders describes the “medieval theater of cruelty” as “a mental rhetorical theater, and a theater of rhetoric which exists as a theory of virtual performance. That virtuality is repeatedly ‘translated’ into actual dramatic practice” (11).

Torture, physical or mental, self-inflicted or officially administered “was extremely persuasive in its tautological manipulations of artifice, power, agency, and spectacle - the precise qualities that underpinned the invention of ‘good’ rhetoric and ‘good’ theater” (34).

In this rhetorical exchange between memory and action, “mnemontechnics answered acts of violence with acts of commemoration, iteration and regeneration [in] ... a vast epistemological system ... by which any rhetor could generate and store words, stylistic devices, topoi, proofs, and performances before speaking and enacting them” (64). The use of emotion and sensation restaged, commemorated, and perpetuated various violent lessons, “whether these be the great agon of Christianity or the apparent comedy of the submission of servant to master and woman to man” (67).

As one of the principal means by which learned authors organized, categorized, and hierarchized their world and their thoughts, “the memory space was no mere ‘frame’ .... It was an epistemological system that roused those exposed to it to aestheticize both figuration and disfiguration” (70-71). The ars memoria, particularly the way Dante deploys the “medieval theater of cruelty” in his Commedia, resolved the paradoxes of violence by “reconfiguring violent, theatrical images of destruction and dismemberment as creational, persuasive, salubrious, curative, civilizing, edifying, instructive and, ultimately, all the more beautiful, desirable, and even entertaining because of those effects” (67).
The primacy of emotion, sight, sound, taste, smell, and touch in the *ars memoria* corresponds to our current immersion into virtual realities, but Yates notes that medieval students’ use of this technique was “active and not simply passive reception” (26). In addition to rendering topics in sensually, emotionally, and thus rhetorically charged mnemonic places, students organized memory palaces to form a series and remembered their *topoi* in orders that, if properly and firmly fixed in the memory palace, could be navigated quickly and easily. One had to be able to keep track exactly of each location in relation to the others in its own and related sets in order to function as the protagonist of one’s own memory play (Enders *Rhetoric and the Origins of Medieval Drama* 51). Memory places needed “contiguity,” that is, their physical details needed to exhibit a relation to closely related spaces, and “direction” like that accorded to numbers and letters. Without these schematics for linking different places, sites, of information, one could not “find” and “place” easily, nor could one “move about” or “gather” them together (Carruthers *Book of Memory* 132).

Careful attention to the way the ornamentation of *loci communi* “played a key marking function for finding one’s ‘way,’ *ductus*, through a literary composition” (Carruthers *Craft of Thought* 78). This meditational “way” provides a user with necessary cognitive *dispositio*, “ordering’ the whole and ‘localizing’ it and its parts” (82) and placing emphasis on “the building process rather than the built object; thus on the interpreting mind rather than on interpretation or even the text, except as it intends or energizes the mind” (110). In order to stress the importance of the concept of an order, *ductus*, to the medieval learning process and the implications it might have for thinking with and in the technology of hypermedia, Carruthers writes,

If we adopt for a moment the central figure of the concept of rhetorical ductus - that of flow and movement, as through an aqueduct - we can think of the ornaments in a composition as causing varieties of movement: steady, slow, fast, turn, back up. They not only signal how something is to be ‘taken’ (like a pathway) - whether straight on (literally) or obliquely (metaphorically or ironically) - but can also give an indication of
temporal movement, like time signatures in written musical composition. Compositional ductus moving in colors and modes varies both in direction and pace after it takes off from its particular beginning (the all important ‘where’ one starts) towards its target (skopos). If a thinking human mind can be said to require ‘machines’ made out of memory by imagination, then the ornament and decoration, the ‘clothing’ of the piece will indicate ways in which these mental instruments are to be played. A stylistic figure, an ‘image,’ signals not just a subject matter (res) but a ‘mood’ (modus, color), an attitude (intentio), and a reading tempo. Movement within and through a literary or visual piece is performed as it is in music. Choice is involved for the author in placing ornaments in a work, and choice for an audience in how to ‘walk’ among them. And, as in all performances, variation from one occasion to another is a given. (116)

In *The Craft of Thought*, her follow up to *The Book of Memory*, Mary Carruthers notes the “mixed” use of verbal and visual media, and often synaesthetic literature and architecture is a quality of medieval aesthetic practice was given “major impetus by the tools of monastic memory work” (3) and taken to its ultimate artistic and rhetorical extent by Dante. Carruthers asks modern readers to conceive of this sort of memory “not only as ‘rote,’ the ability to reproduce something (a text, formula, list, incident) but as a matrix of a reminding cogitation, shuffling and collating ‘things’ stored in a random-access memory scheme - or set of schemes - a memory architecture and a library built up during one’s lifetime with the express intention that it be used inventively” (4).

The medieval notion of memory was not restricted to modern concepts, “but instead recognizes essential rules of emotion, imagination, and cogitation within the act of recollection” and the construction of thought (Carruthers *The Craft of Thought* 2). In the memory palace, mental “places” are associatively related to some content “through analogy and transference and metaphor, as, for example, for ‘joy’ the most similar place is a cloister garth [pratum], and for feebleness, an ‘infirmary’ [infirmaria] or hospic [hospitale] and for ‘justice,’ a courtroom [consistorium]. All knowledge depends on memory, and so it is retained in images, fictions gathered into several places and regrouped into new ‘places’ as the thinking mind draws them together” (14).

Carruthers reminds us that “memoria thus includes, in our terms, ‘creative thought,’ but not thoughts created ‘out of nothing.’ It built upon remembered structures ‘located’ in one’s
mind as patterns, edifices, grids, and most basically - association - fabricated networks of ‘bits’ in one’s memory that must be ‘gathered’ into an idea. Memory work is also a process, like a journey; it must therefore have a starting point. And this assumption leads again to the need for ‘place,’ because remembering is a task of ‘finding’ and of ‘getting from one place to another’ in your thinking mind” (23). A good ordering scheme with topics in their places divided material to be remembered into pieces short enough to be recalled in single units and to key these into some sort of rigid, easily reconstructable order - “a ‘random access’ memory - RAM- by means of which one can immediately and securely find a particular bit of information” (Carruthers Book of Memory 7), as well as “construct any number of additional collations and concordances” (Craft of Thought 16).

The proof of a good application of these medieval mnemonics “lies not in simple retention even of large amounts of material; rather it is the ability to move about, instantly, directly, and securely that is admired” (Carruthers Book of Memory 19). The power of this technique lies in the fact “it provides immediate access to stored material and also provides means to construct any number of cross-referencing associational links among the elements of such schemes” (Craft of Thought 16). In order to effect the ease of navigation and identification of contents in their places, students of these mnemonic techniques were continually called upon to practice the rhetorical operations of sorting, analysis, mixing, reference, juxtaposition, etc., in short, “genuine learning over simple repetition” (Book of Memory 19).

The ars memoria was a key part of litteratura, the study of letters, in fact, as Carruthers notes, litteratura was what memory was for. The ability to “take the ‘lonely pathways’ of imagination and channel them along the powers of association in memory” (3) enabled students to use their creative imaginations to produce “intricate reasoning and original discovery” (4). These rhetorical practices built around mnemonic meditations had great import for the development of secular narratives like those of Chretien de Troyes and Dante Alighieri. In the preface to Eugene Vance’s From Topic to Tale, Vlad Godzich notes that topoi (argumentative structures, part of dialectics) came to structure narrative spaces. Ruth Morse concurs, noting that
fables were used as “instruments for learning latin and morals” (42). In Godzich’s opinion, Thus, instead of having a story move from event to event - a notion not available to dialectic in any case - a section of narrative would provide concrete and particular instantiation of a universal abstract process such as articulation of the particular to the whole, for example, the narrative would be organized around these particular concrete instantiations of the universal abstract patterns constituted by the topics, and, given the latter’s universality, it would necessarily have cognitive import and thus, ultimately, ethical value as well. (xiii)

Vance defines the poetics of the 12th Century and beyond “as part of an important interdiscursive process which both liberated poetic narrative from obsolete epistemological constraints of epic (The Song of Roland) and opened vernacular poetic narrative up to the possibility of far more ambitious intellectual constructions, embodied for example in the Roman de la Rose and The Divine Comedy” (27). Chretien and Dante challenged audiences “with narrative situations and with constructions of plot which carry what we may call hermeneutical imperatives - finding (inveniendi) and evaluating (iudicandi) arguments (41). Regarding Chretien’s use of the lion image in his verse, Vance notes,

given that metaphors are speech acts that always signify discursively, and not in isolation, Chretien has ‘found’ in the lion a symbol whose polyvalence will mark his text as a shifter between multiple discourses (Biblical, classical, folkloric, scientific), all of which he entertains, yet controls, as he distributes them within the economy of his own story, thereby asserting the pre-eminence of his own poetic voice as a vernacular litteratus over the tangled legacy of discourse inherent in the matiere. (84)

In an interdiscursive environment of creative thinking and learning like this, any object, space, or text “that can serve as a point of convergence, intersection, and refraction of a number of discourses, will have privileged place in memoria since it can animate a sizable portion of the latter by enabling the activation of all the discourses that course through its specific locus” (Godzich xv). Utilizing these premises to construct an architectonically and formally coherent narrative of his journey into language as a journey into the afterlife, “Dante joins clerical spheres of knowledge to terrains of practical political [and literary] power” (xv). Carruthers believes this
creative application and construction of memory and what it meant to practitioners like Dante is important for the humanities disciplines of the present day, currently mired in the belief that the “highest creative powers of imagination and intuition exist apart from memory and are claimed to be devoid of intellect - such judgement comes in the post-romantic, post-freudian world where imagination is identified with a mental unconscious of great, even dangerous creative power” (Book of Memory 1).

Within the “cinematic” consciousness of Dante (Chance 79), Curtius notes, “the entire book imagery of the Middle Ages is brought together, intensifies, broadened, and renewed by the boldest imagination” of the Commedia (326). The Florentine’s work represents a crucial relay for the development of new rhetorical methods suited to the virtual realities of cyberspace because as his art shows an unparalleled ability to not only “bridge” the corporeal and intellectual, his fictions build the elusive bridge between rhetoric and poetics so assiduously sought by postmodern critics and medium theorists.

Dante brings rhetorical discourse and Christian pilgrimage together in the narrative of his emotional, spiritual, and intellectual journey. Theoretical and religious precepts interact with artistic practices and habits of composition (Eco Art and Beauty in the Middle Ages 41), and in the Commedia, the architectural, plastic, and semantic come together to teach and communicate (62). While moving from place to place, topic to topic, as he descends into the Inferno, climbs Purgatorio, and flys through Paradiso, Dante the poet performs dis-cursis, the running here and there of rhetorical discourse. Drawing upon the traditions of Boethius, Augustine, and Theodulf who “who equate the pagan hero’s descent into the underworld with that of the reader who must, finally, emerge from darkness and turn to the light” (Chance 151), the Florentine’s very first steps into the “selva oscura,” of Inferno Canto I place him firmly within the practice of rhetorical mnemonics.

Builders of inventoried and inventive memory palaces needed a distinct and set order with a clear beginning like the dark, jumbled forest in Canto I of Inferno, understood as an image of a disorderd mass of information (Carruthers Book of Memory 61). The wilderness was also
conceived as a “potential paradise,” a place of testing, bliss, and contemplation (Dyas 17). From this starting point, the Commedia follows a consistent route through a series of emotional and intellectual epiphanies which culminate, in Dante’s case, with the luminous, harmonious, ordered spheres of Paradiso. Along the route, Dante continually describes his passage with nautical images of navigation to emphasize his progression from barbarity and disorder to a state of integration and harmony. Education is rendered as a journey through an inner space.

Drawing on the ancient tradition of the arts of memory, Dante’s textual divisions point toward the inherently spatial conception he has of his textual field. Derrida notes, in Of Grammatology, “Time itself for Dante occupies a space of events mapped on a grid of mathematical and astrological relations. Movement, textual as well as human, occurs within a fixed space where the relations of things is unimaginably deep and complex. One divides this space in order to mark a way into those complex relations” (198). The route laid out by Dante in the Commedia, and his careful disposition of symbols, condensation, displacement, puns, physical details, emotional affects, and bodily sensations, working by analogy with Biblical exegesis, forms a complex network of associations by which “every event in one part of the poem should figure forth and be fulfilled by another event in the poem” (Nolan 175).

Dante also combines the journey through his memory palace with the notion of Christian pilgrimage. The word pilgrimage itself evolved from the Latin peregrinus, “through” (per), “the land” (ager) (Dyas 1). A Christian pilgrim of the Middle Ages was a foreigner in a state of peregrinatio, a “traveller with a particular religious goal” (1). Carruthers notes the pilgrimage routes to the Holy Land became paths “in physical actuality for ‘making one’s way through’ the Bible readings” (Craft of Thought 43) of the Old and New Testaments. The pilgrim’s route, or ductus, was a map, a “way” among the “places” of the Bible, and the processions were “networks” running among the memories associated with and evoked by the Bible’s narrative (43).

The trope of “steps” or “stages” was “commonly applied to the affective, emotional ‘route’ that a meditator was to take in the course” of a composition, like Dante’s, which travels
through *loci communi* associated with “fear,” to those related to “joy.” These “routes” were emotional and rational, and always characterized as “routes through the things in one’s memory,” and composition was understood “in terms of making a ‘way’ among ‘places’ or ‘seats,’ or climbing the ‘steps’ of a ladder” (60). Carruthers notes that Peter of Celle, writing in *On Affliction and Reading*, “clearly thinks of Genesis in terms of a map; ... a series of journeys, a sight-seeing pilgrimage. In each site he commands us to observe the stories and events as mental scenes. This is exactly the manner of the early pilgrims who made the actual journeys through the Holy Land; the sites mark the ductus of a reader making his ‘way’ through the Biblical narratives” (109).

Dante’s journey into the *corpus*, the body, of his artistic, spiritual, and intellectual knowledge incorporates the three main strands of the idea of pilgrimage as it was understood at the time. The *Commedia* is the interior pilgrimage of the contemplative life, of meditation and mysticism. It is also the moral pilgrimage, the active life of obedience to God, the commitment to avoid sin. And finally, it is the place pilgrimage, the journey to places in order to secure forgiveness, to seek healing and other benefits, to learn and express devotion (Dyas 6).

Wertheim labels Dante “the supreme cartographer of Christian soul-space” and his weaving together of personal experience, education, theology, and cosmology creates a physical, spiritual, and intellectual space representing “a voyage of (and into) a Christian soul” (43). Dante moves beyond time, space, and language itself by combining the three (63) into a vocabulary suited to the mnemonic space of the *Commedia*. Acting as poet and politician, artist and rhetorician, Dante projects himself into this virtual space with the “phenomenal body” of his pilgrim persona. Embodied in this way, “he travels the length and breadth of the material universe as understood by the science of his day; but, simultaneously he travels through the immaterial domain of the soul” (45).

Dante’s logic and organization of this virtual space are quite “cinematic.” The squalor of Hell, the grass and sky of Purgatory, and the light of Paradise enhance the pilgrim’s associations with the lessons evoked by encounters in these regions (59). Furthermore, motion and radiance
increase in the enlightened space of Heaven, and decrease in the damned space of Hell. Sin is associated with the downward pull of gravity, while virtue is associated with sensations of light, speed, and levity (61). Dante’s route is also structurally consistent, with the path through the bolgia of *Inferno* progressing down and to the left, the terraces of *Purgatorio*’s mountain moving up to the right, and the spheres of *Paradiso* rendered as an arrow-like ascent straight toward the mind of God.

Dante does not limit himself to the mastery of the plastic arts of space in the *Commedia*. He also utilizes Time as an organizing feature useful for keeping track of his progress. The downward spiral Dante-pilgrim takes with Virgil into Hell takes exactly twenty-four hours. While mounting the steps of Purgatory and rising through the spheres of Paradise, he carefully marks the movement of the Sun, Moon and constellations in order to “keep his place” in this multi-dimensional space which makes full use of the entire tradition of mnemotechnics.

In the *Commedia*, Dante’s genius weaves together “the Christian epic of man’s soul with the particular tale of his own unique life and times.” The combination of the epic and particular creates a space for a “profound work of social commentary at the center of which is Dante himself” (50). In this new space of social commentary,

the property of the old and the property of the new jointly occupy the place of the former, and this is new space as of many dimensions co-inhering together reciprocally (so supremely with Dante’s *Commedia* and Vergil’s *Aeneid*). The new version, because the old is also there, is a comparison that we can understand - its very structure promotes understanding. And the assay of the old by the new (and of the new by the old, which is not, to repeat, voiceless) is free to all: each reader can judge what for him succeeds and what for him, fails, what the value of the difference is. (Shoaf 130)

To Shoaf’s estimation, Economou adds, “the poet Dante, who uses the classical tradition in his poem, also appears in that poem, discusses that tradition with its chief practitioners in a conversation we are expected to imagine and participates in the enactment of a motif borrowed from that tradition in an episode that dramatizes the meaning of his poetic career in a way that is finally - and surprisingly - affirmative” (181). Dante recreates himself in a fiction that unfolds in
virtual space and gives his “poetic” self a voice that rings throughout the ages in the person of “a ‘virtual’ Dante” so compelling that, like the online identities people construct and encounter on Facebook, in Myspace and online game environments, “we know more about the virtual Dante, ‘Dante-pilgrim,’ than we do about the real historical person, Dante-poet” (51).

In Carruthers’ opinion, the medieval assumption “that human learning is above all based in the memorative processes (rather than in communication or information that we now emphasize) has profound implications for the contemporary understanding of all creative activity and the social role of literature and art” (Book of Memory 1), a key for re-establishing the relevance of the humanities at all levels of education. The *ars memoria* helped students “mentally construct a concordance to learned material” (82) and was integral to developing students’ prudence, “which makes good moral judgement possible,” and “in a trained memory, one built character, judgement, citizenship and piety” (8). For these reasons, the manipulation of virtual spaces in the rhetorical mnemonics of the medieval *ars memoria* should be revitalized as a key feature of re-imagined rhetorical methods suited to the virtual spaces of digital media and computer technology that will dominate the curriculum in years to come.
CHAPTER 4  
INTERACTIVITY AND MODULARITY

Phenomena: Interactivity and Modularity in Electracy

The previous chapters of this dissertation have dealt with objects of digital culture, namely the image and virtual space, and discussed the need for the humanities disciplines to integrate these objects and their current uses in entertainment and information into a 21st Century curriculum increasingly dominated by computers instead of books. This chapter will deal with habits of interactivity and modularity that have emerged along with these new technologies. The first portion of the chapter will engage habits of electronic interactivity and modularity as they are understood by post-modern scholars, deconstructive critics and medium theorists - all of whom have argued compellingly for the apprehension of these electronic methods of conceptualization and their inclusion in humanities scholarship and curricula. The second half of this chapter will shift the focus to medieval sources and scholarship which has explored the well-developed capacity that medieval art and scholarship in its own context displayed for useful applications of interactivity and modularity - applications which provide important relays for the integration of digital technologies into the modern university classroom.

Jerome McGann’s Radiant Textuality has proven to be an invaluable resource in my investigations because he takes up the issue of comprehending digital textuality and what its difference from the world of the printed word means for the humanities classroom of the 21st Century. McGann is particularly adept in this work at bringing the traditional concerns of humanities education and scholarship to bear on his argument concerning the discipline’s need to understand and make use of digital technology. He argues that “all textualizations - but pre-eminently imaginative textualities - are organized through concurrent structures - texts have bibliographical and linguistic structures and those are riven by other concurrencies: rhetorical structures, grammatical, metrical, sonic, referential - the more complex the structure, the more concurrences are set in play” (90).
The concurrencies addressed in McGann’s statement have been the domain of the humanities for centuries. Mountains of scholarship have been generated to study the ways these concurrencies interact to produce the particular textual aesthetics and identities of a certain time and place which, McGann argues, “recreate - they ‘stage’ or simulate - a world of primary human intercourse and conversation. As with their reciprocating critical reflections, they manipulate their perceptual fields to generate certain dominant rhetorics or surface patterns that will organize and complicate our understandings” (173).

Internet related and digital technologies represent the most dramatic shift in textual form and transmission of information since the advent of moving pictures. Because the task of humanities scholarship and pedagogy has been to use rhetoric as a vehicle for exploring the ways the subject is produced by the above-mentioned concurrencies, it is absolutely crucial for the discipline to harness the aesthetic, technological, institutional and subjective shifts taking place around us for use in our criticism and pedagogy.

Digitizing information and making it available on the internet has made all bodies of information “translatable into one another, capable of instant recall and transmission to any point within the network” (Deibert 188). In particular, the transformation of textual aesthetics has heightened the importance of interactive procedures involved with getting access to and utilizing digitized information. The more passive relation between user and information found within the culture of print relied on static stacks of books packed onto library shelves and representing “closed” texts which could only be effectively juxtaposed with the information found in other volumes through the long process of reading and note-taking - in other words, the process that has made this dissertation, and the curriculum it emerges from, possible.

This type of reading and research is being replaced by a process of information gathering heavily reliant on a user’s own intuition and intelligence, not only as a site of coalescence and reflection, but also a point of departure which leads a user to a state of immersion in and interaction with “open” types of information that can be quite overwhelming for many persons who encounter the mass of resources one must navigate in an electronic environment. Gregory
Ulmer comments that users must develop a method for dealing with this “fundamental shift in our textual ontology, away from the ‘text itself’ and the hermeneutic tradition, toward a conception of the textual system as an illimitable matrix, crossing through all cultural, political, social dimensions” (303).

This sort of reconceptualizing is crucial for the humanities disciplines because the changes in the ways that information is now stored and accessed in digital environments have been sweeping. The interplay among different media is vastly more complex. Modern information and communication media like the internet feature a “non-linear cognitive orientation favoring jumps in intuition over a step-by-step logical chain” (Deibert 189), along with a blurring of the lines between public and private domains, personal and professional discourses, representation and narrative. In Avatars of the Word, James O’Donnell covers several of the transformations being wrought upon textuality in the digital age which the humanities disciplines must assess and incorporate into the pedagogy and research being conducted within this field. Online chat rooms, email listserves, interactive educational programs like Blackboard, DVD special features, and the entire body of “networked conversations that already surround us suggest that in the dialogue of conflicting voices, a fuller representation of the world may be found” (41).

As the fixity of closed, printed texts fades and gives way to electronic, open bodies of information, juxtaposition and comparison of texts will be easier and more natural as primary and secondary materials “will interact more powerfully than before as both are online side by side” and, as hyperlinks continue to be the “dominant lines of travel from one item to another” (62), controverted passages “will be linked to multiple articles and treatments directly and then also to intermediate links that would seek to organize and arrange the body of secondary literature” (134). Electronic publication has become, for O’Donnell, “a form of continuing seminar, and the performance is interactive, dialogic and self-correcting” (136), while the single-author tradition is becoming “what it already is in principle: a component of a larger whole.
Online publications of monographs will facilitate a multiplication of approaches and comparative interaction” (133).

Ulmer notes in *Teletheory* that this multiplication of approaches for textual and subject formation and increased interactivity emerge from the fact that new media have erased the “tripartite division between the field of reality (world), field of representation (book) and field of subjectivity (author)” (23). The role of users of new media, representing the “field of reality” in this textual triumvirate, is especially important in light of the now common, synchronous use of informational and aesthetic resources all around us in our everyday experiences.

Online, interactive novels, databases, DVDs, and gaming environments all possess an element of searching and discovery that mix the roles of character/audience, object/subject. As discussed in my chapter on virtual space, one does not read about an adventure, one has an adventure; additionally, one does not simply access information as from a book reference. A user is immersed within and navigates informatinally rich, digital spaces whether he or she is searching for holiday gifts on Amazon.com or searching for enemies to annihilate in games like *Quake* or *Ultima*. These immensely popular and ever-evolving game systems and Multi-User Domains (MUDs) have taken the interactive, role-playing aspect of fantasy and science-fiction board games into virtual realms which sustain many levels of narrative only through the interaction of subjects with, as well as within, these environments.

The habits of interactivity dominate every level of electronic discourse. In databases and search engines, the user’s own intuition and intelligence are the vehicles for information access as these technologies are reliant on keyword searches which allow users to devise their own topics of interest. Users also exhibit a great deal of interactive agency in the hypertexts they encounter in these searches. Jerome McGann notes that “in a hypertext, each document (or part) can therefore be connected to every other document (or document part) in any way one chooses to define a connection” (*Radiant Textuality* 72-73). O.B. Hardison points out that this principle of the uniqueness inherent to each user’s interaction with a text holds true in interactive computer fiction, wherein “each ‘reading’ of a work generates a different ‘plot.’ Some ‘plots’
resemble other plots; on the other hand, some plots produce new and unexpected adventures” (Disappearing Through the Skylight 217).

In reality, even since the advent of the still photograph and the marketing of hand-held cameras, through the introduction of personal computers and on into technologies like web-pages and online environments, users, whether staging a family vacation photo, writing programs in BASIC, constructing web-pages or a new playing level for Quake, or creating a computer virus, have been encouraged to interact with the new media and to build things with these tools “rather than simply to reflect abstractly on the new technologies” (McGann 5). The pervasive element of interactivity present at all levels of electronic culture that encourages users “not so much to find as to make order - and then to make it again and again as established orderings expose their limits” (McGann 72), forces me to include in this chapter’s discussion of the changing “habits” of the electronic environment, a discussion of the quality of new media that makes the heightened presence of interaction in digital texts possible - namely, modularity.

Like interactivity, modularity pervades every level of electronic discourse. O.B. Hardison points out that computer-generated novels are seldom the work of a single author. He compares them to folk ballads, and like ballads, after they have been in circulation for a few years, “they may have several layers of input from many tinkerers - many variants” (Disappearing Through the Skylight 260). Similarly, “public domain computer programs go through a similar process of modification, augmentation, revision, explication, annotation” (260). Furthermore, many PC games are released before several bugs are worked out of the system by developers and it becomes the responsibility of a product’s users to download and install “patches” or expansion kits that improve and enhance their gaming experience.

The Star Wars saga of George Lucas, which has consistently pioneered the use of cutting edge technology in its inventive transformations of cinema, represents the most visible example of modularity that has emerged in the film industry. With advances in digital technology, Lucas and his associates have undertaken ambitious projects which seamlessly combine digital and real elements. Furthermore, in a spirit of re-imagining that Chaucer would be proud of, Lucas has
gone back to the earlier *Star Wars* films like *The Empire Strikes Back*, and included digital imagery that enhances the vision of his space opera in the first three releases from the 1970's and 1980's and makes these earlier films visually more consistent with the special effects seen in the *Star Wars* films he has released since 1999.

The open, evolving, modular nature of digital texts is the most important feature contributing to the heightened level of interaction between texts and their audiences in electronic environments. McGann notes that “electronic texts have a special virtue that paper-based texts do not have: they can be re-designed for complex interactive transformations” (81). He describes the internet itself as an information network that can be “destroyed or cut at any point, or number of points, and still remain intact as a strucutred information network” (72).

McGann lists two matters concerning hypertext crucial to the humanities’ re-imagining of textuality and teaching in new media. In the first place, the “specific, material design of a hypertext is theoretically open to alterations of its contents and its organizational elements at all points and at any time - hypertext need never be ‘complete’” because it will “incorporate and then go beyond its initial design and management, evolve and change over time, gather new bodies of material, and organizational substructures will get modified, perhaps quite drastically.” Secondly, “hypertext does not focus attention on one particular set or sets of texts,” and shows a marked capacity for dispersing a user’s attention broadly, decentralizing design, and possessing an “indefinite number of ‘centers,’ expanding their number and altering their relationships” (71-72).

**Prescience: Post-Modern Applications in New Media Criticism**

The technological and cultural realities of the electronic information environments we now inhabit are pushing the humanities disciplines toward a re-conceptualizing of textuality, scholarship and learning as interactive, modular processes of the sort that have been anticipated and argued for by the most important post-modern criticism of the past few decades. The explosion into our culture of new media which range from television to the internet to I-pods, has
made it necessary for scholars to examine not only the social impact of these new technologies, but the new subjectivities that coincide with their growing presence and importance in our daily lives.

This development in humanities scholarship has given new energy to the use of ideas like Deleuze and Guattari’s “rhizome” and the semiotic games that Derrida plays in his explorations of the literate apparatus in works like *Of Grammatology* and *Dissemination*. Post-modern and deconstructive theories have constantly sought ways of imagining new uses of language and communication that reach far beyond the limitations of the printed word. These concepts, which favor the use of artistic creativity and intuition in critical endeavors, have proven useful to examinations of electronic subjectivity because, as Gregory Ulmer notes in *Heuretics*, “the multichanneled interactivity of hypermedia provides for the first time a machine whose operations match the variable sensorial encoding that is the basis for intuition, a technology in which cross-modality may be simulated and manipulated for the writing of an insight, including the interaction of verbal and non-verbal materials and the guidance of analysis by intuition, which constitute creative or inventive thinking” (140).

In his preface to Derrida’s *Of Grammatology*, Gayatri Spivak stresses the unique, interactive play of *differance* in each reader’s encounter with a book, whereby “two readings of the ‘same’ book show an identity that can only be defined as difference. The book is not repeatable in its ‘identity’: each reading of the book produces a simulacrum of an ‘original’ that is itself the mark of the shifting and unstable subject that Proust describes using and being used by a language that is also shifting and unstable” (xii). Derrida’s task in *Of Grammatology* is to foster a change in the habits of mind governing the relationships between subjects, language and textuality. As Spivak notes, Derrida’s deconstructive strategy encourages subjects of a particular textual system to use many registers of language - such as commentary, interpretation, fiction, and typographical play (xxix) - in order to effect a self-conscious “meditation on writing” (73) which exposes the interactive, modular relations of textuality and subjectivity.
One of the more compelling concepts to emerge from post-modern ruminations on textuality and subjectivity, and one I have found to be consistently analogous to the features and habits of new media, is Deleuze and Guattari’s image of the “rhizome,” which describes an idea, text, or subject as an assemblage having “no beginning or end; it is always in the middle, between things, interbeing, intermezzo” (*A Thousand Plateaus* 25), and has been compared by the authors to a “patchwork quilt - an amorphous collection of juxtaposed pieces that can be joined an infinite number of ways” (479).

Technologies like the world wide web have manifested several characteristics presented almost presciently in Deleuze and Guattari’s development of the rhizome. According to the authors, a rhizome displays principles of connection and heterogeneity, which means “any point of a rhizome can be connected to anything other, and must be. This is very different from the tree or root, which plots a point, fixes an order” (7). Furthermore, these connections are dynamic and unlimited, for “not every trait in a rhizome is necessarily linked to a linguistic feature: semiotic chains of every nature are connected to very diverese modes of coding (biological, political, economic, etc) that bring into play not only different regimes of signs but also states of things of differing status” giving the rhizome the capacity to ceaselessly establish “connections between semiotic chains, organizations of power and circumstances relative to the arts, sciences and social struggles” (7). Certainly, the internet could easily be labelled “rhizomatic” because of its dynamic, unlimited interconnectivity.

A second rhizomatic principle which has emerged in new media is that of multiplicity, wherein “an assemblage is precisely this increase in the dimensions of a multiplicity that necessarily changes in nature as it expands its connections” (8). For Deleuze and Guattari - and Derrida as well in the games he plays with signification and subjectivity - the ideal for a text which displays the principle of multiplicity “would be to lay everything out on a plane of exteriority of this kind, on a single page, the same sheet: lived events, historical determinations, concepts, individuals, groups, social formations” (*A Thousand Plateaus* 9). A good example of this rhizomatic principle in action is the ubiquitous “keyword” search we all make use of when
exploring the world wide web. Initiating a search by one’s browser with a keyword like “poetry” will result in a set of links to pages that cover every permutation and representation of “poetry” available on the web.

A third rhizomatic principle we again encounter in new media like the internet, with its ever-shifting network of public and private web pages, is the cartographic principle which makes the rhizome a “map,” which is “open and connectable in all of its dimensions; it is detachable, reversible, susceptible to constant modification. It can be torn, reversed, adapted to any kind of mounting, reworkd by an individual, group or social formation” and possesses “multiple entryways” (12). Like a keyword search, or construction of a website or series of linked sites, or the navigation of a gaming environment - all processes which favor one’s own instincts and interests - rhizomatic mapping emerges as “an intensive trait starts working for itself, a hallucinatory perception, synaesthesia, perverse mutation, or play of images shakes loose, challenging the hegemony of the signifier” with the result that “gestural, mimetic, ludic and other semiotic systems regain their freedom and extricate themselves from the ‘tracing,’ that is, from the dominant competence of the teacher’s language” (15).

Derrida also exhibits a fascination with rhizomatic modularity of this sort throughout his work. In “The Signature Experiment Finds Andy Hardy,” Robert Ray points out that a book like Signsponge is extremely rhizomatic in character because it “‘always has multiple entrances’, ‘can be cracked and broken at any point’, but starts off again following one or another of its lines, or even other lines” (284). Ray also notes that in Derrida’s, “My Chances,” “an implacable program takes shape through the contextual necessity that required cutting solids into certain sequences (sterotomy), intersecting and adjusting subsets, mingling voices and proper names, and accelerating a rhythm that merely gives the feeling of randomness in those who do not know the prescription” (283).

Scholars searching for a way to characterize the shape and influence of new media have taken up concepts like Derrida’s differance and pharmakon, as well as Deleuze and Guattari’s rhizome, as frames for their arguments. New media are consistently described as “de-centered”
technologies that produce “de-centered” subjects - what Deibert calls historically constituted identities that are “continuously being reconstructed” (181), and the terms and methods of post-modernism have been usefully transposed into discussions of these new textualities, technologies and subjectivities. As Scott Bakutman notes, “the works of post-modernism either emphasize that sense of dislocation or produce some form of cognitive mapping so that the subject can comprehend the new terms of existence” (6).

Bakutman considers these to be important concepts to build on in new media scholarship because digital technology so clearly reveals reality “as construction - a provisional and malleable alignment of data” (30). In an effort to bring post-modern scholarship and avant-garde art to bear on his studies of digital technologies, Bakutman adopts the notion of “terminal identity: the unmistakably double articulation in which we find both the end of the subject and a new subjectivity constructed at the computer station or television screen” (9).

The humanities are not only applying post-modern concepts to the analysis of electronic information environments. Humanities scholars and educators are also using these concepts while attempting to integrate new cultural habits of interactivity and the phenomenon of modularity into the humanities classroom in order to facilitate “the critical and editorial reconstitution of our inherited cultural archive in digital forms” (McGann 184).

Many of the information environments our new students encounter daily feature elements of synaesthesia, kinesis and interactive narrative (Bakutman 197) that allow them to control their consumption of information and products and blur the distinction between producer and consumer, composer and listener, author and reader. As noted earlier in this chapter, students are now growing up in a “‘new’ cultural economy” in which “producers define the basic structure of an object and release a few examples” and “users build their own versions” (Manovitch 245). The students who now enter our courses circulate within an electronic apparatus of subject formation which has changed the status of the audience of new media “from spectator to participant, passive receivers to message senders” (Bakutman 65).
Students are also surrounded by entertainment and art, ranging from television shows and hip-hop recordings, to cyberpunk novels and online game environments, whose “images and prose build upon the detritus of other arts, other fields” (171), and emphasize “expression in metaphors, paradoxes, contradictions and abstractions rather than languages that ‘mean’ in the traditional way - in assertions that are apparently incoherent or collages using fragments of the old to create enigmatic symbols of the new” (Hardison Disappearing Through the Skylight 5).

These qualities of new media make it difficult to “draw a neat line between the serious and the playful” (Bakutman 196) because the disruption of physical space in these technologies “privileges interchangeable, mobile signs over original objects and relations” (Manovitch 7).

Many critics and pedagogues are excited about the potential of new media to “show us how to use our communicative skills self-consciously in an environment in which we do not seek to possess truth but to create it collectively” (O’Donnell 149). O’Donnell argues that the “heuristic quality of life in cyberspace and the ease with which multiple paths can be created will let us create such opportunities with ease and indulge in the high-spirited play of manipulating the tokens of the past in as many different ways as we can imagine” (137). If these qualities of interactivity and modularity already present within new media are successfully integrated into the humanities classroom of the future, it will represent an opportunity for the humanities disciplines to return to the goals of the discipline as expressed in the ancient curriculum, which used the humanities as a foundation for the development of sound character, broad knowledge of human affairs, and a well-developed ability to communicate (Hardison Entering the Maze 123).

The task for the humanities disciplines in this regard is to find ways of utilizing new media to facilitate students’ explorations of practical concepts useful to their everyday lives, ethical concepts which can make them more ideologically self-conscious, and aesthetic concepts which allow for progressive discovery through experience (122) - cornerstones of the humanities disciplines since their inception and now all the more important for students immersed in a shift from print-based to electronic texts and discourses.
Unfortunately, the method for meeting these goals in the new humanities classroom remains a work in progress. As McGann notes, digital technology used by humanities scholars “has focused almost exclusively on methods of sorting, accessing, and disseminating large bodies of materials, and on certain specialized problems in computational styles and linguistics” and “the work rarely engages questions about interpretation and self-aware reflection that are the central concerns for most humanities scholars and educators” (xii).

Indeed, as scholarship, learning and entertainment become ever more integrated within new media that provide a more flexible medium of expressive forms “that work in or with visual and auditory materials” (McGann 18), the humanities must reshape the teaching and learning process that takes place inside a more interactive and modular information environment. Just as 16th century humanists re-defined the rhetorical method in light of printing press technology in a way that led to the static, linear textual forms which dominate education at all levels in all fields, the undeniable and powerful emergence of new media as the new technological paradigm for not only education, but the world at large, places this generation of teachers and students in a similar position. The humanities disciplines of the present day must produce a rhetorical method useful and suited for the synaesthetic, modular, interactive technologies within which we and our students live and learn.

As our information environment becomes ever more synaesthetic, modular and interactive thanks to technologies like the cinema, the internet and virtual reality, humanists have before them the opportunity to develop a rhetoric - a technique for intellectually and emotionally engaging not only the world at large, but our own subjectivities within it as well - that encourages students to “take part in the community of dialogue and the game with time that up till now have been represented by poetic and artistic works” (Debord 52).

Poetry represents an important resource in the making of an electronic rhetoric because “those with intimate appreciation of literary works must become actively involved in designing a new set of tools” (McGann 186) for studying, representing and commenting on them with new media. Furthermore, poetry has remained a bastion of interactive and modular creativity in the
domain of the printed word, able to overcome the fact, observed by Derrida, that “writing ... cannot flex itself in all senses, cannot bend with all the differences among presents, with all the variable, fluid, furtive necessities of psychology” (Dissemination 114).

The pleasure, insight and creativity of poetry stems from what McGann calls its “rationality,” which “consists in its exploitation of the ‘polysemous’ dimensions of language, whose structures are no more (and no less) difficult or even ‘mysterious’ than processes of logical deduction and induction” (127). Poetry’s exploitation of “the polysemous dimensions of language” leads to the creation of texts whose “organization is more mobile with a shifting set of poles and hinge points carrying a variety of objects, many of an ‘opposite’ and ‘discordant’ character, as Coleridge might say” (183). McGann notes that even though some textual information in poems is indexable, “nearly everything most salient about them is polyvalent” (186), and these “works of imagination contain within themselves ... multiple versions of themselves,” are perceiver-oriented, and encourage an audience not to search for an inherent truth, but rather “examine the poem for satisfying, interesting forms and patterns” (218).

One of the main reasons that Derrida’s deconstructive approach has been taken up by new media theorists attempting to analyze the polysemous, polyvalent dimensions of digital culture, is the persistent presence of poetic wordplay, and a healthy dose of ‘play’ as in ‘fun,’ within the game-like investigations of the writing comprising his own texts. Derrida repeatedly capitalizes on the fluid, multi-registered nature of written language with terms like pharmakon, through which he explores the “regular, ordered polysemy that has, through skewering, indetermination or overdetermination but without mistranslation, permitted the rendering of the same word by ‘remedy’, ‘recipe’, ‘poison’, ‘drug’, ‘philter’, etc” (Dissemination 70).

It is Derrida’s aim in Dissemination to embrace all the possible forms of pharmakon, which he calls an “antisubstance: that which resists any philosopheme, indefinitely exceeding its bounds as nonidentity, nonessence, nonsubstance” (70), and demonstrate “to what extent the malleable unity of this concept, or rather its rules and the strange logic that links it with its signifier, has been dispersed, masked, obliterated, and rendered almost unreadable not only by
the imprudence or empiricism of the translators, but first and foremost by the redoubtable, irreducible difficulty of translation” (71-72).

Ulmer also cites Derrida’s efforts in “The Other Heading,” to use an image, in this case the sense that on a map Europe appears to him as a head protruding from Asia, “to open a connection between the particular and the general” facilitated by his playing with the term ‘cap.’ In the essay, Derrida navigates “all senses of cap and its related terms (capital, capitale, captain, etc) to find some relation among these meanings and apply it to Europe” (Heuretics 81). Ulmer notes the premise behind this “mobilizing the whole set of ‘vanguards’ is that a new gesture or unforeseen ‘heading’ (in every sense of the term - geographic and symbolic) is most likely to emerge when categorically distinct elements are brought into contact” (88).

Later in this chapter, I will detail features of medieval translation and exegesis crucial to any understanding of art and scholarship from the period. Medieval theories of translation, poetry and exegesis, with their heavy apporpriations of classcical and monastic mnemonic premises and techniques, demonstrate ways that artists, scholars, and students embraced the “redoubtable, irreducible difficulty of translation,” and used the gap between texts caused by dialectical, linguistic and cultural shifts as a site for infinite creativity wherein one text finds death and rebirth in the hands of a new reader/translator. Because medieval poets and scholars were so successful at turning the dispersing, obliterating and masking mechanics of language to such inventive uses in a variety of interactive and modular contexts for learning and self-expression, the fruits of their efforts represent an important relay between the theories of deconstructive, post-modern and medium-oriented criticism and the attempts to apply these theories to the development of a rhetorical method and accompanying pedagogy suited to the increasingly electronic humanities curriculum of this and future eras.

Derrida’s goal through the entire corpus of his work is to produce a writing able to reveal its status as a complex intersection of representation and subjectivityt. Wigley uses the analogy of a house under (de)construction to describe Derrida’s deconstructive project as
an affirmative appropriation of structures that identifies structural flaws, cracks in the construction that have been systematically disguised, not in order to collapse those structures but, on the contrary, to demonstrate the extent to which the structures depend on both these flaws and the way they are disguised.... Derrida’s texts repeatedly locate the abysses on which the structures they interrogate depend in order to call into question the dominant tradition of thinking that is organized by a certain image of building. (‘The Domestication of the House’ Brunette and Wills, eds. 207)

Derrida imagines this writing as a “development so little modeled upon a law of conceptual immanence, so hard to anticipate, that it must bear the visible marks of its revisions, alterations, extensions, reductions, partial anticipations, play of footnotes, etc” (Dissemination 34). His efforts to create a writing that is also a reading of writing itself led to the formation of deconstruction - a theory informed by artistic practice.

It is also important to note that the benefits of grammatological investigations are not limited to the writers of deconstructive texts. Quite to the contrary, Derrida hopes to provide his readers with a craft for self-consciously exploring “the interactive matrix of technology, institutional practices and ideological subject formation” (Ulmer, Heuretics 17) within which they circulate. Spivak notes in the preface to Of Grammatology that Derrida “asks us to change habits of mind: the authority of the text is provisional, the origin is a trace; contradicting logic, we must learn to use and erase out language at the same time” (xviii).

Spivak herself hopes for a reader “who would fasten upon my mistranslations and with that leverage deconstruct Derrida’s text beyond what Derrida as controlling subject has directed in it” (lxxvii). Derrida’s readers are encouraged to apply the deconstructive paradigm to their own acts of reading and writing - to use many registers of language, to utilize the conceptual operation of reversal/displacement already present in poetry, visual art and film - so that they might become more aware of the way “a person writing is inscribed in a certain textual system” (160).

As I noted earlier in this chapter, several scholars have already recognized the potential for the interactive, modular nature of new media to stimulate the development of new modes of critical awareness, and have used the terms of avant garde critics in an effort to illuminate and
exploit this potential. Gregory Ulmer stresses in *Heuretics* that hypermedia has replaced print as the technological aspect of an electronic, as opposed to literate, apparatus (17). Furthermore, Lev Manovitch notes that avant garde aesthetics are embedded in the interactive commands and interface metaphors of computer technology, such as cut/paste commands, the interplay of animation, live action and printed text, and all-inclusive keyword searches instigated by individual users (*The Language of New Media* 12).

Scholars are now examining the ways that the already-present, avant garde aesthetics of the computer interface can move subjects into new methods of interacting with new forms and practices of information. In particular, many critics are applying Derrida’s vision of a more interactive, investigative reading and writing process that handles texts in a fluid, modular fashion. Ulmer argues that “Derrida’s methods, however arcane their appearance, are in fact artificial intelligence machines as accessible as the computer games they sometimes mimic” (Ray “The Signature Experiment Finds Andy Hardy” Brunette and Wills, eds. 284).

In his preface to *From Topic to Tale*, Eugene Vance points out that computer science offers editors the opportunity to place textual data “on disks in such a way as to allow the critic [and, I would argue, the student as well] to interrogate and construe these data in multiple ways, according to the specific information that he or she seeks” (xxvii). McGann argues that this “lack of discrimination in computerized reading,” a quality that the humanities have already encountered in the work of Derrida, Deleuze, Ulmer, et al, “is exactly what we want to exploit” because it offers scholars and students the chance “to see what textual possibilities have been forbidden or made nugatory by the original act of textual encoding - that is, by the decisive and particular text that stands before us. The random access procedures of digital technology can bring those possibilities to view” (191).

McGann presses this argument, stating it is important for the humanities to understand and apply the new interactive, modular habits of new media because “critical reflection emerges in the mirroring event that develops at simulacral interfaces, of which the book is the one we are most used to using. With the coming of digital instruments we encounter (and create) a new
genre, so to speak, within our sciences of the artificial - a new kind of interface between the human and the machinic” (214). In McGann’s opinion, “the computational simulating and interactive capacities of these new machines should be taken up as mirrors of the same kind as our traditional texts and other semiotic manifolds” (217).

If the project McGann envisions is to be successfully carried out by humanities scholars and pedagogues, the interactive, modular nature of new media and the interactive, modular habits it generates in its users must be integrated into any new methods of information production, reception and analysis taught by the humanities. I have found with great measures of surprise and fascination the extent to which many of the avant garde aesthetics of critics like Derrida, as well as the features and habits of new media, exhibit a complex and useful set of correspondences with the rhetorical practices found in the art and scholarship of classical antiquity and the middle ages that I feel can contribute to this project on the part of the humanities.

**Correspondence: The Powers of Memory**

In *Dissemination*, Derrida openly acknowledges his philosophical kinship with ancient Greek rhetorical precepts. For philosophers like Isocrates and Alcidamas, “logos was also a living thing (zoon) whose vigor, richness, agility, and flexibility were limited and constrained by the cadaverous rigidity of the written sign. The type does not adapt to the changing givens of the present situation, to what is unique and irreplaceable about it each time, with all the subtlety required” (113). Derrida also notes that through Plato, we learn that Socrates urged students not to seek general truths, but rather “to seek ‘among yourselves’ by mutual questioning and self-examination, to seek to know oneself through the detour of the language of the other” (*Dissemination* 121). Plato himself also writes that “no intelligent man will ever be so bold as to put into language those things which his reason has contemplated, especially not into a form that is unalterable - which must be the case with what is expressed in written symbols” (136).

These misgivings, expressed repeatedly in Plato’s works, concerning the ability of writing to keep pace with the mutable, polyphonic nature of spoken language and to
conceptualize, through written signs, the world at large persisted into Late Antiquity. However, instead of worrying about the polysemous dimensions of language, St. Augustine, whose work would exert such an important influence on the art of poets like Dante, acknowledged letters to be poor representations of God’s truth, and embraced the principle of polyvalence found in the relations of things to signs. In *De Doctrina Christiana*, in a passage which echoes Derrida’s sentiments in *Of Grammatology*, Augustine writes,

> But since things are similar to other things in a great many ways, we must not think it to be prescribed that what a thing signifies by similitude in one place must always be signified by that thing.... In the same way other things signify not one thing but more, and not only two diverse things, but sometimes many different things in accordance with the meaning of passages in which they are found. (qtd in Copeland 157)

Copeland notes that this awareness of the ambiguous relationship between signs and things “gives the reader the power of invention,” and creates the ideal sort of interactive reader envisioned by Spivak, as mentioned above, in his preface to *Of Grammatology*. Augustine’s program “gives reading and interpretation - the traditional province of the grammarian - a new status, as textual power shifts from authorial intention to ‘affective stylistics,’ to what a reader can do with the text. In practice it transfers responsibility for making meaning from the writer to the reader” (Copeland 158).

The art and scholarship of the Middle Ages represent an important “mid-point” between the concerns of Greek philosophers over the rigid way in which the written sign expresses thought and post-modern imaginings of a new meta-discursive, meditative form of writing that liberates the sign from its cadaverous state. The Middle Ages and their appropriations and adaptations of classical rhetoric have come to serve as the relay for my own efforts at developing a rhetorical method suited to the technologies and habits of the new electronic information environment our culture is immersed in because, throughout the period, “rhetorical precepts interact with artistic practices and habits of composition” (Eco, *Art and Beauty in the Middle Ages* 41).
In *Chaosmos*, Eco demonstrates how James Joyce, in his radical works, *Ulysses* and *Finnegan’s Wake*, much like Derrida, merges art and theory to produce dense, polyphonous texts which demonstrate “not lack of structure, but superficial structure with a strong, underlying structure in a cunningly organized network of mutual relationships” (67). In Joyce’s case, the mental habits of medieval mnemonics are the keys to navigating his work. Adapting this system from medieval rhetoric provided Joyce with a “mechanism which permits epiphanies, where a thing becomes a living symbol of something else and creates a continuous web of references.” Any character or event in Joyce’s works becomes “a cypher which refers to another part of the book” (9) and the power of these texts lies in their “permanent ambiguity and continuous resounding of numerous meanings which seem to permit selection but, in fact, eliminate nothing” (67).

In *Ulysses*, the web of relations appears as a grid of allusions, and as a system of puns in *Finnegan’s Wake*. Both these techniques of polyphonous interplay of relations between microcosmic character/event and macrocosmic world/history find parallels in Dante’s *Commedia* and Derrida’s criticism. Joyce, with a “medieval disposition” like Dante’s, “examines the immense repertory of the universe reduced to language in order to catch glimpses of new and infinite possibilities of combination - found in contemporary art and various techniques of assemblage, collage, pop clippings, and pastings from products of previous cultures” (10). Both men are driven by “the profound conviction that man, the image of the greater world, can grasp, hold, and understand the greater world through the power of his imagination” (Yates 230). Like the *Commedia* and Derrida’s deconstructive projects, for Eco, Joyce’s work is “an undertaking to transform culture by a process of complete digestion, critical destruction, and radical reconstruction ... in/with/on language” (34).

In *Travels in Hyperreality*, Eco constructs a historical analogy which compares our present, digital age, with the culture of the Middle Ages. Eco notes several similarities between the two epochs, particularly in the area of interactive and modular cultural habits. He points out that art, information and entertainment of both the present moment and the Middle Ages are “not
systematic, but additive and compositive ...: today as then the sophisticated elitist experiment co-exists with the great enterprise of popularization with interchanges and borrowings, reciprocal and continuous” (83).

In Eco’s opinion, our own Middle Ages “will be an age of ‘permanent transition’ for which new methods of adjustmet will have to be employed. The problem will not so much be that of preserving the past scientifically as of developing hypotheses for the exploitatioin of disorder, entering into the logic of conflictuality” (84). Unfortunately, despite the fact that there has been an extensive exchange between avant garde and pedagogical methods, Eco feels that, at best, this exchange has “reached the level of experiment, proposing new exhibition techniques not yet fully investigated: the solution to this contradiction lies not in these avant-garde forms, valid in their own sphere, but in avant-garde didactics, in a developing pedagogy, a revolutionary way of teaching” (304-305).

My argument throughout this dissertation is that the didactics of medieval rhetoric as evidenced in the artistic and scholarly works of the period, particularly with regard to the concept and function of memory, share much in common with the avant-garde didactics which Eco feels hold so much potential for the development of new pedagogical methods. Furthermore, fully understanding medieval memory and its rhetorical applications as a relay in these developments can contribute to productive and practical changes in the humanities curriculum.

Gregory Ulmer has already persuasively argued that re-conceptualizing memory in our new interactive and modular technological environments is crucial to the project of re-making rhetorical concepts and curricula. In Teletheory, Ulmer argues “memory will be the point of inception of this change, as people, interacting with electronic technology, come to experience their conduct differently” (133). Furthermore, no less a figure of the communicative powers in modern technology than the great Japanese filmmaker, Akira Kurosawa, states in the documentary A.K., shot during his own appropriation of Shakespeare’s King Lear in the masterful samurai epic, Ran, that all creativity stems from the powers of memory.
Memory’s importance to subjective and pedagogical transformations is due to a feature of memory common to medieval practitioners of mnemonic arts and one that disappeared from the rhetorical arts with that advent of print, namely, the notion that the two registers of public discourse and private interest are “juxtaposed and manipulated in a technology freeing mnemotechnics from memorization and makes them available as an alternative to calculation and conjecture (136). My goal for the remainder of this chapter will be to discuss the interactive and modular qualities medieval memoria shared with the scholarship and art of the period and stress the usefulness of these qualities in the deployment of medieval mnemonics as a relay for the formulation of an electronic rhetoric.

I have already discussed in chapter two how, in medieval mnemotechnics, things a student read and heard were transferred to images impressed in one’s brain by emotion and sense. In terms of how interactivity figured into this procedure, Mary Carruthers notes, “memoria refers not to how something is communicated, but to what happens once one has received it, to the interactive process of familiarizing, or textualizing, which occurs between oneself and others’ words in memory” (*Book of Memory* 13).

This interactive, modular process revolved around the principle of *domesticare*, the idea that one makes texts, art objects and learned, abstract concepts more familiar by making them part of his/her own experience. Integrating one’s personal interests and circumstances into a useful store of appropriated images was considered the crucial step in the medieval learning process. Hugh of St. Victor, an important primary source for medieval ideas about memory and its uses, “stresses the need to impress the circumstances during which something was memorized as part of the associational web needed to recall it: the sort of day it is, how one feels, the gestures and appearance of the teacher, the appearance of the manuscript” (Carruthers 60).

Such a process, which fosters creative interaction between private and disciplinary discourses was present in all levels of intellectual and artistic production in the Middle Ages. A spirit of “aggressive rivalry” (Copeland 3) permeated Christian commentaries on classical
sources and cultivated a heuristic “privilege of invention,” a discovery of a translator’s or commentator’s own argument. Known as *inventio* in classical rhetorical terms, this aspect of medieval translation and/or explication of pagan classics assumed the character of application because it made the historical situation of the interpreter/translator “a condition rather than an accident of interpretation” (Copeland 61).

Rita Copeland notes that this heuristic quality, so prominently featured in medieval exegesis, or *enarratio*, has disappeared from modern hermeneutics. The exploration and interpretation of primary sources in a curriculum which revolves around an interface with printed texts, “has struggled with conflicting claims of historical consciousness ... the ideal of reconstructing the past on its own terms, and the historicity of the interpreter. But, the medieval exegete registers nothing of such a conflict: for the project of translatio studii, his own historicity, bringing the text forward to his own historical situation, is all that matters” (61).

Evidence of the pervasive presence and influence of this heuristic approach in the commentary and art of the Middle Ages can be observed in works ranging from commentaries like *The Dream of Scipio*, to the poetry of Dante’s *Commedia*, in which the Florentine uses “specifically medieval versions of mythography in a unified way no later poet would” (Chance 19). My task in this portion of the chapter will be to detail the features of this interactive, modular, inventive interface with artistic and philosophical traditions of antiquity fostered in the Middle Ages on the part of scholars and poets, in particular those with direct relations to mnemonics, which can and should be extrapolated and utilized as relays for the development of a rhetorical method suited to the new textual and subjective environments of electronic culture.

**Relay: Rhetoric and Memory in the Middle Ages**

Rita Copeland has done an excellent job of tracing the rhetorical strain consistent in the many interactive forms of commentary, translation and poetry found throughout the Middle Ages. Works from all three genres (genres whose practices constantly overlapped) centered around the notion of a four-fold allegorical approach to representation and interpretation incorporating literal, moral, typological and anagogical layers of Christian exegesis into all
modes of production and reception. This heavily allegorical mode of transmission and reception in all areas of medieval scholarly and artistic discourse demanded producers and audiences interact with texts in a multi-dimensional fashion. Rhetorical principles such as invention, disposition, style, addition/deletion, concentration, substitution, and transposition, principles I feel will gain ever more importance in image/object oriented virtual environments of the future, gave students, commentators, translators, poets and their audiences the ability to “take possession of the text as a discursive totality in the way that the rhetor (or orator) can grasp the case as a circumstantial totality (the summation of attributes of the person and the act)” (70), and successfully navigate the multi-layered premises of Christian allegory.

Application of rhetorical methods to acts of commentary, translation, poetry and memory allowed students of these arts the opportunity to “‘invent’ arguments about the text - or ‘action’ - ... apporpriate to new conditions of interpretation or reception, just as the orator invents a speech that is suited to the particular conditions of time, place and audience” (70). Texts themselves were seen as modular subjects of continuous and changing interpretation according to the judgment of each generation of commentators, translators and poets. This principle rendered texts susceptible to circumstances of reception, just as rhetorical arguments are tailored to particular circumstances of time, event, and audience. This principle leads to a second: the hermeneutical performance assumes a kind of inventional or heuristic force, and becomes an independent productive act. (70)

The conflation of a commentator’s, translator’s or poet’s affective intention with those of primary sources under analysis or used as inspiration and source material for artistic production positioned their actions securely within a rhetorical frame (Copeland 82).

Copeland points out an important difference between applications of rhetoric in Late Antiquity and the Middle Ages. She notes that in the former period, “‘rhetoric’ retained its importance as an academic discipline, but not its power as praxis, an application of practical wisdom in public affairs” (153). I would argue that the teaching of rhetoric now faces the same
dilemma in our current curriculum. Students encounter rhetoric as some amorphous term that seems to be limited to the writing of good essays. Learning about rhetoric in the ossified form it has taken on since the advent of textbooks with clearly defined rules for using good rhetoric in writing courses, has only served to distance students from their objects of research and the rhetorical arts from any sense of connection to the everyday lives of teachers and learners. With the displacement of literate discourses by new habits of electronic culture, this problem is only being exacerbated as long as new methods of teaching and applying the rhetorical arts are not sought after.

Much like the aforementioned worldplay and experimentation of deconstructive and post modern criticism, which has pushed the limits of literary discourse and seen many of these new approaches to textuality transposed into electronic theory and pedagogy, medieval hermeneutics injected a new vitality and sense of praxis into the rhetorical arts commentators and translators had inherited from Antiquity. Copeland describes Christian commentary as a dynamic interaction with a classical source which “introduces itself into the text by breaking the text down into lemmata, which it surrounds and appropriates by quotation and restatement” (83).

In a fashion strikingly similar to Derrida’s method of engaging literary traditions with his inventive, exploratory deconstructive approach, medieval hermeneutics - and by way of its influence medieval translation and poetry - in Copeland’s opinion, “does not simply address and describe the terms of discourse or argument: it masters and applies these terms, re-arguing the text by appropriating the prescriptive strategies of rhetoric” (83). Students were encouraged to ‘consume,’ and ‘envelop’ a text, and, in a series of increasingly challenging and creative steps, ‘remake’ the primary source in structure with an assignment known as *exercitatio*, in style by producing an assignment requiring mastery of the primary source’s style, an exercise termed *elocutio*, and in conceptual orientation, by demonstration of *eloquentia*, the moment where the student developed a project along similar grounds to the primary source, but surpassing it in structure and style. Although designed to draw Christian significance from encounters with classical sources, the methods used by students of medieval hermeneutics, translation and art
feature a strong playful and creative element which, like Derrida’s aforementioned wordgames, enable the ‘remake’ to “loosen syntax, supply causal connections, force hidden layers of significance to the surface ... in the play of an illuminated foreground” (Copeland 83).

This highly creative learning process, which fosters an interaction quite unlike the master-servant relationship between primary source and audience now present in modern hermeneutics, actually revels in “contesting and displacing the source through linguistic difference and cultural appropriation” (Copeland 92). Vernacular commentaries and translations of Latin texts “substitute a potentially infinite linguistic multiplicity for the monolingual continuity of the Latin tradition; and as essentially exegetical productions, these texts carry over the contestive motives that already operate in medieval exegetical practice, reflecting the rhetorical and even agonistic character of medieval hermeneutics” (128).

The inventive, rhetorically driven approach to interacting with classical and Christian sources assumed even greater importance during the social transformations of the later Middle Ages. In Medieval Readers and Writers, 1350-1400, Janet Coleman notes,

as educational opportunities opened to an increasingly numerous ‘middle class’ there was a meeting of personal interest with scholarly dispute. This is most evident in the Middle English literature that survives for the latter half of the 14th Century, that period of England’s literary golden age which boasts Chaucer, Langland, Gower and the Gawain poet. At this time we can distinguish a genre of didactic literature whose aim seems to have been the education of its audience in matters of current theological, political and ethical interest.... Its means ... was to employ mixed and transitional styles; an older method, that of courtly literary conventions of 13th Century and early 14th century poetry, and a newer method, which extended English alliterative prose and poetry and explored possibilities of journalistic reportage in verse and prose. French and Latin literary conventions and subjects merged with regional interests and poetic traditions to serve as ‘frames’ for poems whose messages dealt invariably with a Christian ethic as it was simultaneously defined and debated behind contemporary monastic and university doors. (15)

This fusion of artistic practice, which utilized rhetorical tools of form and presentation, with the circulation of information and argument on various important social issues, represents one of this period’s key correspondences with the present day that I am exploring in this dissertation - our
own culture’s increasing tendency to circulate all types of information and argument through electronic media by way of those features inherent to these new technologies that have already been exploited by art and entertainment.

The creativity of medieval exegesis stemmed from its focus on allegorical interpretation. Because each new encounter with a primary, classical or Biblical source could produce a new interpretation, or argument, of the text, “medieval exegesis replicates rhetoric’s productive application to discourse: as the orator fitted a speech to the particular circumstances of persuasion, so in a certain sense the medieval exegete remolds a text for the particular circumstances of interpretation” (Copeland 63-64). Not only in exegesis, but translation and poetry as well, the merger of rhetoric and art was driven by the use in all three genres of the figurative, polysemous, non-realistic representational mode of allegory. The result was a dynamic, interactive learning process which utilized the interpretation and invention of allegory to “rewrite” primary sources according to the significances that each new interpreter, translator or poet discovered in a text.

The “immanent poetics” present in medieval notions of the “rewrite” drew upon “an earlier work’s potential for new expression” and created a “sphere of originality” (Kelly xiii) quite unlike modern literary notions of authorship. Medieval masterpieces in all three of the above-mentioned registers were “inventive and skillfully honed transformations of conventions” (42) that functioned as “comedia,” or bridgeworks (113) between classical and Biblical sources, and their medieval re-writings.

These “bridgeworks,” which find what many consider their ultimate representative in Dante’s Commedia, employed the principle of conspiratio, “with breathing,” an interaction with the many voices brought into an act of interpretation, translation or poetry, in which the medieval author negotiated among these voices to arrive at a new version. This art of allusion required medieval writers to demonstrate how their re-writes quoted, commented upon, corrected, integrated and reread other texts (Kelly xi).
Janet Coleman has used the musical analogy of modality - which refers to the way scales of different tonalities can be played against, and thereby complement assonantly or dissonantly, a particular chord - to describe the habits of medieval readers and writers, who “perceived inherited, written authority not in the form of whole works or structures, but in the form of sententiae or authorities taken out of their original setting and applied in a variety of new structures, often foreign to the original intention of the authority” (Medieval Readers and Writers, 1350-1400 171).

Just as deconstructive and post modern theorists have unlocked new modes of argument by capitalizing upon poetry’s capacity to invigorate spoken and written language with a flexibility and depth lacking in most conversation and prose, figures like Thomas Aquinas, Dante and Chaucer acknowledged poetry as an “inventive logic” (Copeland 160) able to “encompass all problems of ethics, politics and religion” (181). Copeland also draws a striking and unknowing correspondence to the emerging habits of electronic culture when she notes that medieval poetry was successful as a vehicle for teaching and reform because poetry possesses the remarkable quality of fulfilling the rhetorical precepts of docere (to teach), delectare, and movere simultaneously and - crucially - “through synaesthesia” (181).

Throughout his works, Dante capitalizes upon poetry’s synaesthesiac capacity for appealing to intellect, emotion, memory and the bodily senses in order to frame arguments addressing “the question of how to define the status of the vernacular with respect to academic systems” (Copeland 180). These arguments, driven by the ‘inventive logic’ of poetry in Convivio and Commedia, introduce “the possibility of extending academic discourse beyond the protective enclosure of the academy and its Latinity” and use rhetoric as “a lever to challenge the traditional hegemony of academic discourse” (182), which is a goal I feel the humanities must pursue and discover methods for if the discipline is to retain its relevance and importance in the digital age.

Copeland discusses in detail how Dante, in a fashion similar to a director who provides audio commentary for a DVD edition of his own film, actually undertakes a hermeneutical
reading of his own poetry in *Convivio*. She notes,

*Convivio* can accomplish its rhetorical aims only through the enabling structure of hermeneutics. This actual structure of priorities, in which a vernacular hermeneutics is the true controlling force, upsets the very hierarchical relations of text-commentary, master-servant, and Latin-vernacular that Dante claims to preserve. The *Convivio* demonstrates how the servant commentary has become the master discourse, the locus of meaning and the agent of rhetorical control. And as the linguistic medium of an all-powerful exegesis, the vernacular is inscribed as the language of real cultural authority, for it is through a vernacular text and its vernacular commentary that the *Convivio* carries out the highest of all ethical imperatives. (184)

Dante, like Derrida, encourages his audience to take up his dynamic, empowering interaction with written material. Copeland continues her argument, pointing out that Dante takes the lessons he learned from Augustine in moments like the “tolle lege” sequence in Book VII of *Confessions*, and

extends or transfers rhetorical control to readers by locating the real power of ethical inquiry in the act of interpretation or reading and by offering his own exegetical performance as a kind of program for his readers. Moreover, the *Convivio* enjoins its audience to take on the responsibility of exegetical control by calling attention to its status as a vernacular academic text which makes the tools of informed reading broadly accessible. (183)

The nebulous relationship between ideas of *rhetorica, grammatica, litteratura*, as well as the lack of strict conceptual or methodological divisions between categories like *enarratio* (exegesis), *translatio*, and *poetria*, meant that the creative, interactive and modular learning principles of the period featured prominently in acts of not only exegesis, but translation as well. Central to the process of translating texts into and out of Latin throughout the Middle Ages, was the idea that a good translator can “emulate, model, and absorb [the source’s] qualities and in so doing actually improve his own language to the point where it rivals its predecessor” (Morse 201).

Rita Copeland and R.A. Shoaf have shown repeated fascination with Chaucer’s explorations and manipulations of the intimate interactions between translation, rhetoric and poetry throughout the body of his work. In particular, Chaucer’s play within this fluid frame
embraced the notions of difference and displacement which have found such voice in the
deconstructive work of Derrida. Copeland points out the way that a translator like Chaucer, in
works like Boece, takes the rhetorical motives of difference and displacement beyond the goals
of emulation, modelling and absorption found in what she calls “primary” translation. She
writes that Chaucer’s “secondary” translations “insert themselves into academic discourse, not
by proposing to serve the interests of continuity with the antiqui, but rather by calling attention to
their own status as vernacular productions and thus underscoring the fact of historical difference
that vernacularity exposes” (179).

The “aggressive textual appropriation” in Chaucer’s works allowed him, like Dante, to
discover new cultural powers embedded in vernacular poetry from within the academic
disciplines of hermeneutics and translation. In Copeland’s words, Chaucer shows us “rhetoric
rehabilitated as hermeneutical performance.” Acts of interpretation and translation are
“transformed into an expression of rhetorical difference from the source - hermeneutical
performance becomes the point of departure for rhetorical invention” (184). In their takeovers of
academic discourse, medieval writers like Dante and Chaucer demonstrate a marked tendency to
“foreground the problem of difference or rupture that vernacularity represents, thereby redefining
academic discourse itself within a framework of disjunction” (185).

Chaucer’s appropriation of academic discourse involved extensive manipulation of the
authorial functions of exegete, compiler, auctor, and translator within the “comic, fictive
framework” of his poetry. Copeland notes that in Chaucer’s prologues to his exegetical
translations of Ovidian and other classical texts in works like The Legend of Good Women,
despite the fact that he adopts “the conventional exegetical stance that comes with the materials
of the accessus ovidiani [i.e. the correction of an earlier impropriety]” (190), the focus of the
work “is plainly directed to the translator as auctor whose own personal experiences (the comic
fiction of his love of daisies, his dream, the accusation of the moral transgression in his earlier
literary career) is the direct cause of the present text” (194). In Troilus and Criseyde, Chaucer’s
Narrator unsuccessfully adopts the position of a writer of fin amors romance, while in The Wife
of Bath’s Prologue, the wife herself employs sermoniacal and legal modes of argument to compile her views on marriage. Copeland interprets Chaucer’s pervasive play on authoritative postures as a “sign of the control that Chaucer, as vernacular writer and translator, exerts over the academic tradition ... [allowing] free play of a self-reflexive comedy” (186).

In Chaucer’s Body, R.A. Shoaf draws upon the visceral, sometimes sensual, sometimes grotesque sets of metaphors that emerge from and describe the interaction of the translator and the translated (roles that switch back and forth between texts and readers) as Chaucer understood it, and applies them to an exploration of the poet’s work in a manner that echoes not only the sentiments of the “Grant Translateur” Chaucer, but Derrida as well. Building upon Derrida’s notion of spoken and written language as pharmakon, a substance holding the potential to be ‘poison’ as well as ‘antidote’, Shoaf notes that as one who does not see himself as an originator, “the translator creates fragmentarily out of the archive of others’ originals that, like the story of Tereus, threaten to ‘infect’ and ‘envenom’ him unless he inoculates himself with his own versions of them” (102).

In the highly interactive conversation, and conversion, that takes place in medieval translations like Chaucer’s, “the translator always does some violence to the body of the original - betrays the body of the original by effacing it, substituting his own body for the original’s” (Shoaf 116). However, the invasive translator also allows the movement by the translated source into the body of the new text, and the medieval audience would have expected to see the conversation between the old version and the new take place before their eyes. Naturally, to undertake such an interactive, multi-dimensional - and over the course of several versions, always shifting - dialogue, a writer like Chaucer would have deployed the devices and tropes of rhetoric and poetry so that his audience might appreciate the process of comparison, contrast and revision at work, as well as the establishment of his own interests and arguments in the same text.

Shoaf stresses the important position of the reader, himself a translator, in this enterprise, noting that “the assay of the old by the new (and of the new by the old, which is not, to repeat,
voiceless) is free to all - each reader can judge and compare old and new and decide what for him succeeds, what for him fails, what the value of the difference is” (130). Janet Coleman warns modern readers who might dismiss Chaucer’s work as merely derivative that “to recognize [Chaucer’s] sources is not to reduce the originality of his achievement but, in fact, to enhance it. It is the way Chaucer moves away from the strict tradition of composition that prevents us from reducing his work to a mosaic of his sources” (*Medieval Readers and Writers* 201).

The intimate relations between the spheres of exegesis, translation and poetry - all of them concerned with persuasive application of rhetorical tools like invention, arrangement, style, delivery and memory - are borne out in the more overtly poetic gestures of innovators like Dante and Chaucer. The close kinship of translation and poetry as it was perceived by these men is even present in the terminology describing these genres that the medieval artists inherited from antiquity.

Shoaf examines the conceptual lineage linking translation and poetry in Chaucer’s work, stating,

To raise this argument to the level of poetics, or metatranslation theory, we can say now that every figure is fundamentally a comparison in which a word or a phrase, say, “cut,” resigns its place, its proper sense, gives it up, to an otherwise absent (and often ineffable) entity, which thereafter occupies that place together with the original owner (/proper) - if there is no joint occupancy, there is no figure, only a precis.... We know that in Latin *translatio* translates the Greek *metaphora* - a metaphor speaks “translatively.” *Translatio* as the name of metaphor is already figurative, as is *metaphora* itself, in that the spatial image of “bearing” one thing “across” to another is an effort to picture the construction of a metaphor as the transfer from one sphere of reference to another, different sphere. As such, “metaphor” is actually a metonym (metalepsis) of cause and effect: a deverbal noun, “translation” (action or cause) substitutes for the effect of imagining or envisioning a relationship between two discrete spheres of reference. The “transfer” is a material, tangible substitute for the intangible mental act that results in the figure. This “transfer” is thus a “change of place” (the removal of a saint’s relics is also a *translatio*, for example). This change of place is very much a resignation and re-sign-ation. (Shoaf 129)

The active appropriation of academic disciplines in poetic acts raised medieval poetry to the status of a discipline parallel to “ethics, politics, rhetoric, economics” (Curtius 146).

Innovators like Dante, Langland and Chaucer utilized poetry’s combination of *praxis* (action)
and *poeisis* (making) to make the art *the* major vehicle for “the irruption of subjectively experienced history into the culture of the middle ages with its epic mythological, philosophical and rhetorical stamp” (Curtius 369). Janet Coleman has also studied the transformative features and goals of medieval poetry and notes that the poetic reformulation of contemporary social and religious concerns of authors and audiences alike in this period produced “a literature that did not merely passively reflect its time and context but was written as an encouragement to critique and change” (*Medieval Readers and Writers, 1350-1400*).

Furthermore, regarding structure, Shoaf and Copeland have repeatedly traced Chaucer’s modular tendencies throughout his work. Never regarding his work as finished, fixed texts, he returned again and again to his works and undertook massive reorganizations of them in the form of deletions, additions, restatements and reorganizations that, in many cases, completely redefined the themes at the core of these texts. This modular tendency might explain why Chaucer’s masterpiece, *The Canterbury Tales*, were discovered in a fragmented and unfinished scattering of manuscript. Modular behavior is also evident in the ever-fascinating multiple versions of William Langland’s *Piers Plowman*, a “combination of social satire and inward exploration” (Coleman, *Medieval Readers and Writers* 170), whose different versions scholars constantly juxtapose in order to observe how Langland’s arguments against the Church shifted in form and emphasis over the poet’s lifetime.

In addition, Mary Carruthers, in *The Book of Memory*, notes that Hugh of St. Victor’s memorial ark, his “machina universitatis” is a model, the details of which “are often incoherent, impossible to graph completely because they shift and change - indeed, this picture only works as a mental encyclopedia whose lineaments can merge and separate and shuffle about in the way that mental images do, but two-dimensional ones fixed on a page cannot” (232), and adds that “Hugh allows his ark-diagram to complicate almost endlessly [using every definition of the Latin term *arce* in a fashion similar to Derrida’s use of *pharmakon*], as it develops in his recollective meditation” (238).
In From Topic to Tale, Eugene Vance characterizes the poetic gestures of the later Middle Ages as “part of an important interdiscursive process which both liberated poetic narrative from obsolete epistemological constraints of epic (e.g. The Song of Roland) and opened vernacular poetic narrative up to the possibility of far more ambitious intellectual constructions, as embodied for example in the Roman de la Rose and the Divine Comedy” (27). Poets like Chaucer and Dante used the fixed ideals, fictional types, satire, horoscopes, style, form and commonplaces they had inherited from the antiqui and medieval forebears as the raw material for their work and then infused this material with their own contemporary content and concerns (Coleman 47).

Most striking to me about the poetic practices and goals of these writers, and a correspondence I find potentially very useful to the interactive, fluid environment of new media, is the way that their notions of re-making and re-using inherited material for their own uses draws very close comparisons to the deconstructive movements of Derrida which “do not destroy structures from the outside, nor can they take aim except by inhabiting them in a certain way” (Of Grammatology 24).

Time and again, medieval scholars have acknowledged Dante’s Commedia as the most thorough and unsurpassed example of a medieval poet’s attempt at “enclosing and incorporating other kinds of fictions in order to turn them to his own ends” (MacDonald 71). Mary Carruthers notes that, for artists like Dante, “the ‘foundation’ of ‘historical’ knowledge is the ground: it ‘authorizes’ in the medieval sense, by initiating and originating further construction [whereas] the modern period sees a work as an ‘end,’ a ‘superstructure’ to be contemplated in isolation” (Craft of Thought 20). Dante’s habitation within and re-making of the poetic tradition, with the goal of creating a new man and a new language (Curtius 360), is marked by a characteristic ingenuity in the construction of episodes, whatever their literary provenance, that are arresting and singular in their literal actions and intriguingly complex in their implications. Repetition and continuity, thus, involve the making of something new. The choice of Casella and the consequent exchange between the dead and living pilgrims [in Canto II of Purgatorio] reminds us that the pilgrim-hero of the
poem is also a poet. While this identity has been worrisome to some critics ... here it is irresistibly drawn to our attention that the poet Dante, who uses the classical tradition in his poem, also appears in that poem, discusses that tradition with its chief practitioners in a conversation we are expected to imagine and participates in the enactment of a motif borrowed from that tradition [i.e. the encounter between the classical heroes Aeneas and Odysseus with parental figures in the Underworld during their respective journeys] in an episode that dramatizes the meaning of his poetic career in a way that is finally - and surprisingly - affirmative. (Economou 181)

Dante’s appropriation of and habitation within the poetic tradition makes the Commedia “open to ancients and moderns alike and they are often made to consort in arresting combinations” (MacDonald 12). Shoaf notes that in this interaction between the voices of the ancient poets and the modern one, “the property of the old and the property of the new jointly occupy the place of the former, and this is a new space as of many dimensions co-inhering together reciprocally (so supremely with Dante’s Commedia and Vergil’s Aeneid). The new version, because the old is also there, is a comparison that we can understand - its very structure promotes understanding” (Chaucer’s Body 130).

Over and over throughout this epic work, MacDonald notes that “Dante resubmits the frozen images to the heat of history, melting them down and re-circulating them, testing them against the strain that history has put upon them” (Shoaf 72). Interwoven into Dante’s poetic doctrine is an intense interaction between the pilgrim/poet and “all aspects of medieval culture, from medicine to cosmology, from psychology to rhetoric and soteriology ... harmoniously blending together” (Agamben 90). However, his re-membering, re-making, of the poetic tradition is not a passive, “compulsive repetition” (Shoaf 9). In his excellent “Theologia Ludens” essay, Mazzotta reminds us that Dante’s delicate weaving together of multiple textual strains is, like Chaucer’s aggressive textual appropriations,

a mark of Dante’s syncretism, of the prodigious, multiple vibrations in his magisterial voice. Much is at stake in this style of fabulation. In a primary way, it is as if he peeks into the stubborn contradictions housed by divisive philosophies and juggles them into his own master version of the angelic myth. But the harmonization Dante produces is not the mechanical and finally reductive compendium of heterogenous fragments; rather he inserts within his borrowing from disparate philosophical speculations that which his sources bypass or never acknowledge: the fact that their systematic, mutually exclusive
philosophical broodings are not and cannot be construed as the truth. They are polemical, partial glimmers. (226)

This manipulation by the Florentine of various texts and philosophies also drew upon the techniques of Biblical typology and exegesis prominent in monastic mnemonic meditation, whereby, “every event in one part of the poem should [like the Bible and its commentaries] figure forth and be fulfilled by another event in the poem” (Nolan 175). In The Craft of Thought, Mary Carruthers elaborates on this idea, noting “in the minds of monastic writers, every verse of the Bible thus becomes a gathering place for other texts, into which even the most remote (in our judgements) and unlikely matters were collected as the associational memory of a particular author drew them in” (19). Images and episodes throughout the entirety of the Commedia are given a meta-narrative depth via their abilities to assonantly or dissonantly echo sections within the canticles in which they are encountered (e.g. the relations between Dante’s various encounters in Inferno) as well as episodes found in the other major sections of the Commedia (e.g. the associations that can be drawn between sections of Inferno, Purgatorio, and Paradiso together).

Dante’s appropriation of Biblical typology and exegesis brings us full circle, back to the point I made earlier in this chapter before embarking on my discussion of medieval educational and textual practices I feel to be useful relays for pedagogy and research in electronic environments: all these techniques and their overlapping uses formed a complex interaction with the modular memory techniques of the Middle Ages. The interconnected practices of exegesis, translation and poetry formed a two-way relay with memory wherein the techniques present in interative, modular acts of enarratio, translatio, and poetria were used as sources and tools for building up one’s memoria, which, itself, was one of the major rhetorical resources that artists and students drew upon to produce these same acts of interpretation, translation and art, whether poetic, visual or architectural.

Jody Enders notes, the “essence of memoria was to reimagine, replicate, reenact and re-remember” (The Medieval Theatre of Cruelty 107). A student re-heard, re-saw, and re-felt sources
in a “shattering, deconstructing” fashion (Carruthers, *Book of Memory* 169). Mary Carruthers adds that, for medieval scholars and artists, “there was much merit in liberating the mind from the rules and commentaries learned in successive layers of schooling .... [enabling] the creative mental ‘play,’ the recombinatory engineering of meditative memoria” (*Craft of Thought* 29) and producing “an edifice of one’s own life ... created from stories available to all citizens, [but] also a fully personal creation, an expression (and creation) of one’s character” (21).

These habits, fully embraced by the liberal arts of the Middle Ages, noted not only in mnemonics, but interpretation, translation and art of the period, allowed for a tampering with texts “that a modern scholar would (and does) find quite intolerable, for it violates most of our notions concerning ‘accuracy,’ ‘objective scholarship,’ and the ‘integrity of the text’” (Carruthers *Book of Memory* 164) and produced a “hermeneutical dialogue between two memories, not a hermeneutical circle of mere solipsism” (169). The habits of interactivity and modularity, so troubling to modernity, but so appealing to postmodern and medium theorists alike, are the correspondences between the medieval *ars memoria* and new media we should aspire to see inhabit our classrooms and our students’ lives.
CHAPTER 5
CONCLUSION

This dissertation represents the culmination of a process that began when I was an undergraduate in R.A. Shoaf’s Early Modern Literature courses as an undergraduate at the University of Florida. Not only did Professor Shoaf’s passion for teaching authors like Chaucer and Dante pique my interest in pursuing English as a career, his abilities as a teacher laid bare the awesome genius of these poets and enabled me to embrace these works and find ways of using them to engage and overcome emotional and social questions in my own life. Little did I know that the benefits I reaped for myself having read these works and learned about them from Professor Shoaf would become the guiding force in the pedagogies I am attempting to design for my own students. My sincerest wish is that any pedagogy I design based on these texts and these experiences will lead my own students to the same large and small scale epiphanies I encountered as an undergraduate.

During work on my Master’s Degree, I developed and admiration for and friendship with Dr. James Paxson, whose brilliant scholarship and boundless enthusiasm was infectious for me. Dr. Paxson’s graduate courses focused on the rhetoric and design of those most compelling of medieval virtual spaces - the mystery and morality plays. Dr. Paxson was particularly open to my comparison of image-text techniques that dominated medieval discourse to the moving pictures of cinema, and how both are able to incorporate layer upon layer of discourse that audiences are able to assimilate with but a glance. Dr. Paxson also guided my Master’s Thesis, which focused on the hypermedia-like qualities embedded in Dante’s *Commedia*.

Having completed my Master’s Degree, I was finally ready to place myself under the tutelage of Dr. Gregory L. Ulmer, whose scholarship and instruction will continue to shape and re-shape my professional endeavors for the rest of my career. Dr. Ulmer’s own research has shown me ways that the ancient can find use in the present. His studies into applications of classical rhetoric suited to hypermedia environments and the reading material he assigned and recommended gave me the grounding in rhetorical studies that I required to begin usefully
connecting medieval rhetorical practices to my own needs as a teacher and scholar of the Humanities. In addition, Dr. Ulmer’s seminars were thrilling juxtapositions of theory and creativity in UF’s Networked Writing Environment which constantly called upon students to make imaginative, insightful connections between reading materials and class projects. These seminars also helped me realize the potential of hypermedia for humanities pedagogy and were the place where the seeds of this dissertation’s argument were sown. For the guidance I have received from these three men, I shall be eternally grateful.

My argument, stated throughout this dissertation, is that the empowering practices of medieval textual and memorial production, observed in works like Dante Alighieri’s *Commedia*, share close relations to, and potential solutions for, the concerns of post-modern scholars, medium theorists and pedagogues who are particularly concerned with how subjects circulate within interactive, modular electronic information environments and how we will incorporate these new technologies and the subjectivities they circulate into the university curriculum. Reading and writing with and through images, immersing oneself into virtual spaces charged with bodily and emotional sensations, and interfacing with discourse as an interactive and modular experience are the dominant features of the emerging electrate environment. These features also dominate the functions of the *machina memorialis*, the machine of memory, found in the rhetorical practices of the Middle Ages. In particular, these features of new media correlate to the construction of students’ memory palaces, which themselves satisfy and render the rhetorical demands of invention, arrangement, style, delivery, and memory.

It is my opinion that a re-investment of these techniques into the Humanities Disciplines will re-enforce and increase their relevance to education at all levels. We are now working with a student body that spends almost all of its time outside the classroom immersed in virtual spaces dominated by the new media features listed above. If we are to do the necessary work of preparing our students to compete for the resources of the communities they will enter after graduation then the university curriculum must appropriate technologies and methods able to successfully prepare students for achievement in the world at large. Hence, this dissertation has
examined the correspondences between the mnemonic practices of the Middle Ages and the subjectivities taking shape around media like cinema, the internet, multi-user domains, and video games that must be addressed by scholars and pedagogues seeking to maintain and enhance the importance and relevance of an education that includes studies in the humanities disciplines.

In the short term, I plan to extrapolate the information contained in these chapters and produce journal articles that deal with each of the features essential to new media - the image, virtual space, and interactivity and modularity. Ultimately, however, I do plan to turn this project into a book-length publication. Furthermore, I have received a permanent position as a faculty member in the English Department at the University of North Florida and will be heavily involved in future discussion on the applications of digital media across the curriculum. As my career as a scholar and teacher continues to develop, I will continually search for ways to use medieval memoria in all its forms and applications as a relay for shaping my students’ sense of their own subjectivities in the classroom, and the expression of their subjectivities in the world at large.
WORKS CITED


BIOGRAPHICAL SKETCH

John Matthew Chapman was born on May 22, 1971, in Gainesville, Florida. Growing up in North Central Florida, he was a big fan of the Florida Gators and always dreamed of coming to school at the University of Florida. After graduating from Buchholz High School in 1989, John made those dreams a reality and pursued a dual major in English and history at UF.

Upon graduation with a Bachelor of Arts Degree, John worked as an office assistant in Atlanta, GA for a year while he decided on his next course of action. Unable to shake the inspirational experiences he enjoyed as an undergraduate English student, John endeavored to pursue an advanced degree in English. After completing his Master of Arts under the direction of Dr. James Paxson, John decided to continue working toward a doctorate in English. With the guidance of Dr. Gregory L. Ulmer, he has come to the completion of his Ph.D.

During his graduate studies, John was afforded the opportunity to teach as a graduate assistant in UF’s English Department. At the same time, John began performing as a jazz musician on the local music scene in Gainesville. After the completion of his assistantship, John moved to Jacksonville, FL, in 2004 and took a position as a writing instructor in the English Department at the University of North Florida. At the same time, he also auditioned for the Music Department at UNF and enrolled in their prestigious Jazz Studies Program where he spent three years studying with internationally recognized recording artists. At this time, John has brought his love of literature and music together in a course on Jazz Literature he hopes is as interesting and challenging as the courses he took at UF. Upon completion of his Ph.D., John intends to continue pursuing his love of the arts and academia as a teacher, a scholar and musician.