Psychodynamics of language

Pamela Ann Margerm
New Jersey Institute of Technology

Follow this and additional works at: https://digitalcommons.njit.edu/theses

Part of the Technical and Professional Writing Commons

Recommended Citation
https://digitalcommons.njit.edu/theses/942

This Thesis is brought to you for free and open access by the Theses and Dissertations at Digital Commons @ NJIT. It has been accepted for inclusion in Theses by an authorized administrator of Digital Commons @ NJIT. For more information, please contact digitalcommons@njit.edu.
Copyright Warning & Restrictions

The copyright law of the United States (Title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted material.

Under certain conditions specified in the law, libraries and archives are authorized to furnish a photocopy or other reproduction. One of these specified conditions is that the photocopy or reproduction is not to be “used for any purpose other than private study, scholarship, or research.” If a user makes a request for, or later uses, a photocopy or reproduction for purposes in excess of “fair use” that user may be liable for copyright infringement.

This institution reserves the right to refuse to accept a copying order if, in its judgment, fulfillment of the order would involve violation of copyright law.

Please Note: The author retains the copyright while the New Jersey Institute of Technology reserves the right to distribute this thesis or dissertation.

Printing note: If you do not wish to print this page, then select “Pages from: first page # to: last page #” on the print dialog screen.
The Van Houten library has removed some of the personal information and all signatures from the approval page and biographical sketches of theses and dissertations in order to protect the identity of NJIT graduates and faculty.
ABSTRACT

THE PSYCHODYNAMICS OF LANGUAGE

by
Pamela Ann Margerm

This work examines the origins of our existing principles of communication to observe patterns of language and their causes. The study surveys twenty-five hundred-years of Western language and writing and its evolution through cultural interaction. The nature of this evolution is the topic of this thesis. There are four periods of time that are studied for their influence on language and writing: the Late Classical Period, the Early and Late Medieval Period, the Early Renaissance, and the Twentieth Century. The study revealed that language and writing have always had a significant metacognitive function within Western culture. Language and writing have been elemental in the progressive evolution of humankind because they are the most universal means of communication. There have been two great shifts in the use of language and writing and we are on the threshold of a third.
PSYCHODYNAMICS OF LANGUAGE

by
Pamela Ann Margerm

A Masters Thesis
Submitted to the Faculty of
New Jersey Institute of Technology
in Partial Fulfillment of the Requirements for the Degree of
Master of Science in Professional and Technical Communication

Department of Humanities and Social Sciences

May 1998
APPROVAL PAGE

PSYCHODYNAMICS OF LANGUAGE

Pamela Ann Margerm

Dr. Burt Kimmelman, Thesis Advisor
Assistant Professor of Humanities and Social Sciences, NJIT

Dr. Norbert Elliot, Committee Member
Chairman, Humanities and Social Sciences, NJIT

Dr. Christopher Funkhouser, Committee Member
Special Lecturer, Humanities and Social Sciences, NJIT
BIOGRAPHICAL SKETCH

Author: Pamela Ann Margerm

Degree: Master of Science

Undergraduate and Graduate Education:

- Master of Science in Professional and Technical Communication, New Jersey Institute of Technology, Newark, NJ, 1998

- Bachelor of Science in Marketing, New York University, New York, NY, 1974

Major: Professional and Technical Communication

Presentation and Publications:

This thesis is dedicated to
W. Richard and Doreen Margerm
ACKNOWLEDGEMENT

The author wishes to express her gratefulness to her thesis advisor, Dr. Burt Kimmelman, for his encouragement, guidance and support throughout this research.

I would also like to thank the members of my thesis committee for their invaluable guidance, contributions and insight into the research of this paper. In addition, I would like to express my sincerest gratitude to Dr. Nancy Coppola for her Departmental guidance and the Graduate Student Association, the Office of Graduate Studies and the Department of Humanities and Social Sciences for their practical support of my education.

I would like to thank Ezra Ehrenkrantz for giving me the opportunity to work with him and his staff during my graduate program.

Finally, to my dearest friends Tina Salvesen for her advice and willingness to read every draft of this work, and Armando Acosta for his guidance on every aspect of this work, I extend my deepest gratitude and thanks.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>1.1 Introduction</td>
<td>1</td>
</tr>
<tr>
<td>1.2 Towards an Archetype: Universal Principle of Literacy</td>
<td>4</td>
</tr>
<tr>
<td>2 THE LATE CLASSICAL ERA</td>
<td>8</td>
</tr>
<tr>
<td>2.1 Introduction</td>
<td>8</td>
</tr>
<tr>
<td>2.2 Overview</td>
<td>8</td>
</tr>
<tr>
<td>2.3 The Significance of Plato</td>
<td>11</td>
</tr>
<tr>
<td>2.4 The Significance of Aristotle</td>
<td>16</td>
</tr>
<tr>
<td>2.5 The Role of the Stoic Philosophers</td>
<td>21</td>
</tr>
<tr>
<td>2.6 Conclusion of the Late Classical Era</td>
<td>30</td>
</tr>
<tr>
<td>3 THE EARLY TO LATE MEDIEVAL PERIOD</td>
<td>33</td>
</tr>
<tr>
<td>3.1 Introduction</td>
<td>33</td>
</tr>
<tr>
<td>3.2 Part I: A Chronology of the Transition Period</td>
<td>33</td>
</tr>
<tr>
<td>3.2.1 Late Roman A.D. 1-400</td>
<td>37</td>
</tr>
<tr>
<td>3.2.2 A.D. 500-700</td>
<td>45</td>
</tr>
<tr>
<td>3.2.3 Conclusion of the Transition Period</td>
<td>48</td>
</tr>
<tr>
<td>3.3 Part II: The Development of a Textual Culture</td>
<td>51</td>
</tr>
<tr>
<td>3.3.1 Late Roman A.D. 600-800</td>
<td>51</td>
</tr>
<tr>
<td>Chapter</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td>3.3.2 Carolingian Renaissance</td>
<td>57</td>
</tr>
<tr>
<td>3.3.3 1100-1400</td>
<td>62</td>
</tr>
<tr>
<td>3.3.4 Cathedral Schools of the Late Eleventh Century</td>
<td>63</td>
</tr>
<tr>
<td>3.3.5 1100</td>
<td>64</td>
</tr>
<tr>
<td>3.4.6 1200</td>
<td>69</td>
</tr>
<tr>
<td>3.3.7 Conclusion</td>
<td>73</td>
</tr>
<tr>
<td>4 THE EARLY RENAISSANCE</td>
<td>76</td>
</tr>
<tr>
<td>4.1 Introduction</td>
<td>76</td>
</tr>
<tr>
<td>4.2 William of Ockham</td>
<td>77</td>
</tr>
<tr>
<td>4.3 The Rise of the Vernacular</td>
<td>80</td>
</tr>
<tr>
<td>4.4 The Rise of Printing</td>
<td>84</td>
</tr>
<tr>
<td>4.5 Significance of the Printing Press</td>
<td>87</td>
</tr>
<tr>
<td>4.6 Conclusion of the Early Renaissance</td>
<td>89</td>
</tr>
<tr>
<td>5 THE TWENTIETH CENTURY</td>
<td>90</td>
</tr>
<tr>
<td>5.1 From Gutenberg to Remington</td>
<td>90</td>
</tr>
<tr>
<td>5.2 Introduction</td>
<td>91</td>
</tr>
<tr>
<td>5.3 Education</td>
<td>92</td>
</tr>
<tr>
<td>5.4 Print and Media Technology</td>
<td>93</td>
</tr>
<tr>
<td>Chapter</td>
<td>Page</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>5.5 Philosophy</td>
<td>95</td>
</tr>
<tr>
<td>5.6 Abstraction</td>
<td>100</td>
</tr>
<tr>
<td>5.6.1 Arnheim's Definition</td>
<td>100</td>
</tr>
<tr>
<td>5.6.2 Active Abstraction</td>
<td>102</td>
</tr>
<tr>
<td>5.7 Typography, Poetry and the Visual Arts</td>
<td>102</td>
</tr>
<tr>
<td>5.8 Conclusion</td>
<td>109</td>
</tr>
<tr>
<td>6 Conclusion</td>
<td>112</td>
</tr>
<tr>
<td>6.1 Conclusions</td>
<td>112</td>
</tr>
<tr>
<td>WORKS CITED</td>
<td>117</td>
</tr>
<tr>
<td>WORKS CONSULTED</td>
<td>122</td>
</tr>
</tbody>
</table>
## LIST OF PLATES

<table>
<thead>
<tr>
<th>Plates</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 <em>World number I</em></td>
<td>1 A</td>
</tr>
<tr>
<td>2.1 <em>World number II</em></td>
<td>8 A</td>
</tr>
<tr>
<td>3.1 <em>World number III</em></td>
<td>33 A</td>
</tr>
<tr>
<td>4.1 <em>World number IV</em></td>
<td>76 A</td>
</tr>
<tr>
<td>5.1 <em>World number V</em></td>
<td>90 A</td>
</tr>
<tr>
<td>6.1 <em>World number VI</em></td>
<td>112 A</td>
</tr>
</tbody>
</table>
CHAPTER ONE
INTRODUCTION

1.1 Introduction

One way to begin to understand the effects on culture and society that have accompanied the electronic age is to examine the origins of our existing principles of communication. By looking at the past it is possible to observe patterns of language and behavior and determine their causes. This is a particularly opportune time to undertake such a study because of the sweeping changes that have taken place since the recent introduction of electronic technology and specifically, the computer. The abstraction of the language and image into binary code and the transmission of it along non tactile paths is what makes the technology revolutionary in an evolutionary sense. The enormous appeal of the telephone's ability to link voices has extended to the telereporting of words over the phone lines via fax machines and the Internet. The age of change is always the one that the individual lives in and some changes are more profound than others. Over a twenty-five hundred-year period human technology and culture have significantly evolved. The nature of this evolution is the topic of this thesis.

Since the mind allows for the process of thought, and because thought that rises in the mind can be expressed through words, the way we think about words influences how we write with words. The written record of our thoughts is reflected,
in turn, in both our culture and our technology. The psychodynamic properties of written language can be considered as an evolutionary force that extends from the Greek formation of a metalanguage, a language to talk about language (as discussed in Chapter Two), to the present moment in which the electronic medium has created a new form for communication (which is discussed in Chapter Five). The shape that this form will take is not clear at this moment, nor need it be. The development of the grammatical basis for the Greek, and later the Roman, language was not based on speculation: it was created on the basis of an astute observation of the oral poetics and prose of that culture. That which the Greeks held most dear to themselves as human was set down using the technology of the time which, as we shall see, was developed in tandem with the methodology for self-expression. Language and technology formed a symbiotic arrangement with one another that reflected the needs of the culture. Symbiosis was a natural process that grew from within the society.

In examining the *techne* of communication, therefore, many of which began in the ancient world, we can begin to see how the human ability to communicate has always been intimately connected with technology and culture. Heidegger defines the linguistic use of *techne* as the denotation of a mode of meaning\(^1\) (59). The dynamic of the interaction of language, culture and technology is a primary factor in the manifestation of the world as we experience it at any one moment in time. The

---

\(^1\) To know means to have seen, in the widest sense of seeing, which means to apprehend what is present, as such. For Greek thought the nature of knowing consists in *aletheia*, that is, in the uncovering of beings. *Techne*, as knowledge experienced in the Greek manner, is a bringing forth of beings in that it brings forth present beings as such beings *out of concealedness* and specifically *into* the unconcealedness of their appearance. *Techne* never signifies the action of making.
expression of ideas by a community, or by individuals, in the form of a comprehensible language has always been the catalyst for change and growth in western society.

Language is a tool of thought. Through the vehicle of writing, both oral discourse and untested ideas can be recorded in a visibly graphic format. In this format ideas can be physically moved, translated and reproduced. In Western civilization the creation of a metalanguage for texts allowed for the compilation of a collection of texts. These texts, in turn, were the vehicles through which cultural ideas and technological change were transmitted. Indeed, the ability to communicate both within and between communities through the vehicle of the text enabled the development of a metasociety. Beginning with the Greeks, the society of text spread through Europe and later, to the Americas. The power of the word, and how a society uses the word, has great significance in our perception of ourselves as individuals and in our relationship to our cultural environment.

By looking at three key elements in the use of languages—the formation of a written language, the texts that are recorded, and the method and style through which a text is transcribed—we can, over time, begin to develop a perspective on the use of language throughout history. This type of historical perspective is invaluable in the development of a contemporary understanding of the pervasive effects of electronic technology on literacy. We must know more about how the new literacy influences the ways in which we deal with each other and the world around us.
1.2 Towards an Archetype: Universal Principle of Literacy

Much of the available literature on this subject of language, technology and culture focuses on either the mechanics of the technology, or on the psycho-philosophical aspects of the products of the technology. An alternative approach, which might lead to a deeper awareness of the dynamic of current literacy, is to include a perspective of universal principles of literacy. These enable us to see the subtle structure of how ideas are shaped and transmitted in visible form. These principles are of two kinds: the philosophical and the pragmatical. The dynamic play that takes place with the interaction these principles, when set in the context of a contemporary culture and technology, helps to reveal the attitudes that shape the transition to a new form of communication. Just as the shifting of our way of viewing art from a one dimensional flat view to that of one point perspective, and the ability to machine print books changed the way people related to everyday objects, so too are our lives influenced by electronic technology which has affected all forms of communication.

This present investigation that is looking specifically at the changes in the psychodynamics of image and word in European culture, examines the convergence of ideas in the arts and sciences at four moments in time. These moments — the Late Classical Era (Chapter Two), the Early to Late Medieval Period (Chapter Three), the Early Renaissance (Chapter Four), and the Twentieth Century in (Chapter Five) and the Conclusion (Chapter Six) — have been chosen because, in each one, a significant change has taken place in the manipulation of words which propelled a shift in the evolution of western culture. In each of the following chapters there are discussions
of individuals who embody the spirit and intellectual climate of their perspective time. The discussion of language will be centered around an analysis of their ideas and how those ideas were interpreted with technology and culture.

Following this introduction, Chapter Two will outline the philosophy and development of a metalanguage by Plato, Aristotle and the Stoics, who together formed the transitional bridge between an oral and literate culture. The fundamental ideas encoded in the literature of the Late Classical period will be traced, in Chapter Three, to the development of literacy in Roman culture, and the formation of the literary canon that was carried into European culture as part of the canon of the Christian church. A historical chronology in Chapter Three will trace, in the first half of the chapter, the cultural influence of Christian orthodoxy and Latin on literacy in Western Europe.

The second half of the Chapter Three is a discussion of the shift from an oral to written culture that took place in western Europe from seventh through the twelfth centuries when the discovery of the Late Classical Greek works prompted a reunification of the Greek ideals, that were interpreted within the context of the late medieval contemporary society, with Christian philosophy. In this setting Latin was the language used for commerce, government and theology and the vernacular, native languages, including the works of Dante, Chaucer and others became the language of a new European literary canon.

Chapter Four will examine the influence of William of Ockham whose writings heralded a break with the scholastic philosophy of Aquinas that was based on
the Neoplatonic Christian philosophy of Augustine, and opened the way to the fifteenth-century Renaissance ideas of Leonardo da Vinci and Francis Bacon. The first part of the chapter will explain Ockham's views on the separation of knowledge of God from language, and how his idea(s) opened the way for the rise of empirical science and the rise of vernacular literature. The final sections of the chapter will talk about the conditions leading up to and the invention of the printing press and the subsequent rise in printing. In these last sections, the nature of print itself will be discussed, as well as the impact that widespread printed materials had on every aspect of communication in Western culture.

Chapter Five will look at the twentieth century, with emphasis on the technological developments for mass communication created in the late nineteenth century: the invention of the photograph and the linotype machine. The effects of the photograph, mass printing techniques, the novel and film will be related to the origins of the separation of linguistics and semiology as separate avenues of philosophy. Chapter Five will discuss literacy at the millennium, the development of electronic literacy, and the computer. The concepts of structuralism, deconstruction in literature and abstraction in art will be considered as methods for understanding the nature of change in language, literature and image within contemporary culture. Set in the backdrop of the actual change that has taken place in language, the media of electronic poetry, hypertext, and visual imagery the role that these arts have played as harbingers of a shift in the premises of language as we currently understand it will be examined. The examination of the writing and visualization in twentieth-century
Western culture is an indication of where the culture is moving. It can be considered the oral discourse of the society. Just as the original philosophical grammarians structured the mechanics of their writing on oral discourse, our writing is influenced by the public arts.

Understanding the realignment of form that has been predominant in the twentieth century arts will assist in a new interpretation of writing would be based on textuality. By incorporating sound, image and light, and word a new, more subtle means of communication could be created that would more closely reflect the processes of the mind. Because language, which arises in the mind, is an inherently human mechanism, any method of the expression of language is a reflection of evolution and refinement. If one of the goals of being human is to arrive at an understanding of the unity of the self with the universe, and if the universe is contained within the essence of humans as Aristotle suggests, then the ability of humans to develop greater clarity and simplicity in natural communication will lead to systems that more perfectly reflect the soundless idea that rises to form the sound that creates language.
CHAPTER 2

LATE CLASSICAL ERA

2.1 Introduction

Behind the modern studies of language—of semiotics, linguistics, philosophy of language, literary criticism, and aesthetics—was once, essentially, a general theory of ontology: the nature of being. The Greece culture developed an alphabetized written language that deciphered, analyzed and codified the structure and use of their oral language and literature. By 500 B.C., philosophy was an established discipline that considered the human relationship with the world, with things other than human in the world, and God. Greek works on metaphysics, logic, epistemology, ethics and aesthetics still act, at least in part, as the basis of western thought today. This chapter will examine the aspects of that early philosophy that pertain to communication at the transition from an oral to a literary based culture. An outline using Plato, Aristotle and the Stoics will show how the evolution of the attitudes and ideas on oral and written language and aesthetics that were developed during the late Classical Era created the structure for Western written and literary canons.

2.2 Overview

What we refer to today as the Classical studies of language and literature were initially developed in the five-hundred year period before Christ, and the rise of Christian culture in the West. During this time, the framework of a metalanguage was created...
in Greece. The works of the ancient Greeks, Protagorous (490-421), Plato (470-347 B.C.), Aristotle (384-322), and the Stoics (Zeno, Cleanthes, and Chrysippus 445-315-204), and later of the Romans, with Varro (100 B.C.) comprise the original formation of a metalanguage, a language about language. This metalanguage formed the basis for most of the critical developments that took place in the later ancient world.

Pre-Socratic Greeks were essentially oral thinkers linked by habits of oral dissemination to traditions of the past and formulaic ways of expressing past experience. The Sophists, beginning with Protagorous, began to classify language for the purpose of teaching and formed the first grammatical models. For the first time metaphysical and political ideas, abstract ideas and the shift from what is called the mythical to the logico-empirical mode of thinking occurred (Coleman 158). Language was discovered to be the tool of knowledge, a tool that could be reflected back upon itself as well as a force that required regulation and control through social institutions. The institutionalization of the metalanguage of grammatica, the part of philosophy that was concerned with everything having to do with language, did not take shape in some neutral or purely abstract field; it was developed with clear principles of inclusion and exclusion and was systematically encoded with authority and cultural power (Irvine 24).

The combination of the concepts of Plato and Aristotle, together with the

---

1 Irving defines grammatica as "the art [or science] of interpreting the poets and other writers and the principles of speaking and writing correctly" (1). McLuhan defines grammatica as "Greek for literature and it concerns the interpretation of written texts and the ground patterns on words, etymology" (9).
pragmatic definitions formulated by the Stoics, eventually led to the complete
codification of all terms for words and their formation in language. Irvine notes that
Diodorus, writing from a position within the Roman grammatical culture between 60-
21 B.C., constructed an origin for the pre-eminence of grammatica in the Greek
society, in his Bibliotheca historica through his description of an earlier Sicilian law
by Charondas.

"Charondas' law was written in a culture that had already accepted grammatica
as the basis for their writing, religious tradition and law. "In fact the lawgiver
judged grammatike above every other kind of learning, and with good reason: for
through this art most of the affairs of like such as are most useful, are concluded,
like votes, letters, covenants, laws, and all other things which make the greatest
contribution to orderly life. ...Consequently, while it is true that nature is the
cause of life, the cause of the good life is the education which is based upon
letters (grammaton)"(Irvine 12).

Donatus and Priscian are examples of the Roman attitude of education based on
language and literature. Their grammatical treatises, ars grammatica, based on the
comprehensive work that had been done before them in the Hellenistic culture, were
the foundations for grammatica, the study of language and literature, in the Middle
Ages.

The centrality of grammatica throughout the duration of the late Classical to
early Renaissance era is itself an astonishing fact of Western culture (Irving 1). The
power of grammatica derived from the fact that it was the art of reading and
interpretation: all other learning depended on the skills and methods it taught. The
formation of a metalanguage--a specialized language to talk about language and texts -
was a precondition of the appearance of a literate culture and a milestone in intellectual history (Irvine 23).

Language, as used for speech and writing, provided the structure for the examination of all aspects (social, political, artistic) of the culture of the time. By the late Classical-early Medieval period, linguistic discourse inserted itself in the order of knowledge as an arbiter in the system itself—classifying, ordering, and distributing knowledge—according to a model of discourse, objects, signs and interpretation. The system of grammatical writing that was in place by 60-20B.C. is seen as the key to all written traditions, especially religious and cultural scripture (Irvine7-13).

### 2.3 The Significance of Plato

In Plato’s time, literacy and writing were becoming widespread and, as a result, the Greek language significantly changed. By the time Plato wrote on philosophy, the Greeks had transcribed a substantial amount of oral literature and the beginning of a written tradition was in place. Plato’s development of the vocabulary and epistemology for oral and written speech has been used for nearly all subsequent discussion on the philosophy of language, semantics and semiotics, grammar, exegesis, and literary criticism.

The three central ideas in his concept of language are logos\(^2\), discourse, and

---

\(^2\) Logos is defined by Peters as any of the following things: speech, account, reason, definition, rational faculty, proportion. It is an amorphous word that is used in a variety of ways. Plato uses logos to mean at certain times a spoken account, or a true opinion accompanied by an account. Aristotle pushes the definition to include logos as reason or rationality in an ethical context. The Stoics considered logos as the active force.
the authority of the text. His work on the nature and use of logos accounts for the differences that arise between the written word and its referent: the referent in writing is more general and abstract than that of the oral word which is closely connected with a particular person, place or time (Irvine 25; Coleman vol.1 58; Robbins 14). Plato defined the philosophic nature and construction of the transmission of vocalized thought. Logos, in Platonic theory, is the result of connected meaningful utterances. Vocalized thought can be either oral or written. Logos is the audible or visible (written) expression of thought. Thought forms in the mind as soundless ideas. An idea is able to be expressed through word of which there are two significant types: nouns and verbs. Words with assigned definitions are linked together and formed into units that contain meaning. Meaning is constructed through the way in which words are linked together. Nouns can be modified with noun phrases. Logos is the name for the meaningful statement. In brief, logos could be described as an individual composing a thought with nouns, noun parts, and verbs. The statement of a thought is transmitted through the medium of either speech or writing. When the statement has meaning it is one of the forms of Logos.

Logos (thought statements) can be sent and received in oral discourse: they can only be interpreted in writing. The problem with the interpretation of logos is the central issue in Plato's theory and in modern semiotics as well. Plato's position is that the purpose of speech is to communicate truth. Language which could potentially be misinterpreted (have an alternate meaning) was to be avoided. Hence his well known warnings on the dangers of poetry and the use of Homer in education (Republic 377A-
Oral speech in Plato’s theory was potentially the purest communication because the speaker could adjust (fine tune) logos for the audience. The interaction of the live participants in the discourse was essential. The active speaker, in presenting his idea, could alter his statements so that the audience would clearly understand the essential truth in what he was trying to say.

Writing, on the other hand, speaks silently. The words cannot respond. On what authority therefore can a text be interpreted? Plato’s resolution of this question was that there could be no guarantee of an accurate interpretation of a text. The text would need to have, as it were, a spokesperson to relay the truth to the reader. “The inversion of this idea formed the basis for grammatica and the construction of a textual society as we know it” (Irvine 30).

It is important to bear in mind here that writing, at this time, was intended to be read aloud. The writing space for storytelling and oral poetry is the space between the speaker and his or her audience, and that space is available in any culture. The Greek alphabet aimed at creating a uniform system of writing, in which there was nothing beyond the phonetic transcription of the phonetic word (Bolter 59). It was the capturing of an oral moment and recording it to return it to orality again. Plato, as noted earlier, was opposed to the inclusion of Poetry in education. Since logos was only to record truth statements, interpretive grammar was subjugated to the restriction of the dialectic study texts for the higher truths they indicate. Irvine points out that Plato’s position was that only the dialectical ascent through resemblances to pure Forms exercises the inner memory, and a philosophical art of rhetoric can move the
soul to remember. This view of writing motivated the allegorical strategies of the Stoics, Neoplatonists and Christians (Irvine 27-30). Although Plato may have been seeking to move logos to a subtle realm of pure truth, he was unable to escape the limitation of written signs.

Three of Plato's works are related to the formation of linguistic meaning in language: the *Cratylus*, the *Parmenides* and the *Sophist*. The *Cratylus* (388B.C.) is one of the earliest linguistic treatises extant. Plato is given credit for this book as well as the Sophists. This work outlined the segregation of the noun and the verb and grouped adjectives with nouns. The distinctions were based on the logical grounds that nouns were an action or a condition which is predicated and a verb is what is predicated of it (Robbins 14). Plato indicates in this work that he is searching for the ideal language. "And even if we do not or cannot actually construct it, the notions of a systematic embodiment of correctly framed concepts may serve as an ideal against which to measure technical language (435C)" (Kretzman 361).

In the *Parmenides* and the *Sophist* Plato establishes the formation of meaning for names and then statements. If something has a name, then it exists: truth depends not merely on names but on certain syntactically regular combinations of verbs and names. Hence, "Whenever there is a statement it must be about something" 262E (Kretzman 362).

---

¹ From a grammatical point of view, Plato established the distinctions between subject and predicate, between substantive and adjective, the active and passive voice and the 5 categories of discourse: political, rhetorical, conversational, dialectical and technical (Robbins 14).
Discourse is a collection of logos woven together; or the conscious weaving together of nouns (onomas) and noun phrases and verbs (rhemas) to make statements (logos) which refer to “real things and their nature and therefore have a truth value” (Robbins 14). Using this communication model, Plato discusses the attributes and qualities and effects of different media for logos in the *Phaedrus*, the *Republic* and in *Letter 7*.

The central work for all subsequent discourse on writing-language and texts is the *Phaedrus*. In this work, Plato discusses textual memory (written) with dialectical recollection (speech). Plato recognizes what Walter Ong refers to as the authority of the text. Plato’s distrust of writing as a vehicle of knowledge, in *Phaedrus*, led him to restrict it to the skill of techne. Writing, under Plato, was restricted to the study of letters as phonic representations and basic literacy (Irvine2,22,27,98). It is related, in the *Phaedrus*, that when the Egyptian god Theuth invented writing brought it to the ruler of all Egypt, the god Thamus, he was told that his invention was calamitous as it would cause those who used it to lose the learning in their minds by neglecting their memories. Through the reliance on letters, which are external to the mind, men will lose the ability to recall things that are within themselves. “You have discovered an elixir not for memory (mneme) but for reminding (hypomneseos). Thamus warns Theuth that henceforth his students will be purveyors of false wisdom and that they will appear to know much of what they are, in fact, ignorant. They will become
public nuisances, these men who look wise but lack wisdom” (Coleman 157; Irvine 27).

2.4 The Significance of Aristotle

Aristotle’s logical refinement of definitions and categories for language and its applications shifted the emphasis on logos to its practical application as a tool of speech. Aristotle expanded the framework of Plato by adding the dimension of a systematized matrix for inquiry into the nature of the universe and human relationship to it. His multiple analytic distinctions were oriented toward the precise formula of problems for inquiry. The most characteristic scientific treatises of Aristotle, from the *Metaphysics* to the *Parts of Animals*, were carefully organized presentations of problems with extensive and meticulous discussions of the methods most appropriate to a particular inquiry (Kerferd 150-161). Aristotle’s work⁴ is a comprehensive inquiry and analysis into the nature of the universe on earth and human existence, as well as speculation of what is beyond. The clarity of his thought, which has not come down in its original format, has continued to effect Western thought for twenty-five hundred-years. His efforts were aimed at an analytic classification and clarification of unambiguous questions; and logic was an instrument for the study of each and every branch of knowledge. His philosophy regarding language, poetry and art can be found throughout his works (Robbins 18).

---

⁴ Listing of works of Aristotle: *Organon: Categories, De Interpretatione, Prior Analytics, Posterior Analytics, Topics, On Sophistical Refutations, Physics, On the Heavens, On Generation and Corruption, On*
As a twenty-year student of Plato, much of Aristotle's work is based on that of his teacher. He differs radically from Plato on the subject of the arts, (what we call the performing arts), of poetry, dance and music, and what we call the fine arts of painting and sculpture. Plato, as noted earlier, felt that art was a twice removed imitation of life. It was a mirror that reflected an image that was itself a reflection of the universe (Butcher 159, Rep.x597e). Therefore, in Plato's philosophy, the arts did not work with universal qualities or essences of nature.

Aristotle understood the potential of written language, and saw it as a vehicle for heightened consciousness and the construction of reality. In the *Metaphysics* and *Nichomachean Ethics* he explains how the methods of poetry and rhetoric can serve as higher frameworks and purpose because of their innately higher potential capacities within language. He provided writing with a framework for literary analysis within a general philosophical system, as well as a practical grammatical system for reading, writing and articulate speech (Irvine 31).

Aristotle's work on grammar and literature draws from existing examples of how language is used and recorded (*Poetics* 4 1448b 8). Like Plato, Aristotle's system for language is built on the elements of speech starting with sound and ending with discourse. In *De Interpretatione* (On Interpretation) Aristotle writes:

"Spoken words are the symbols of mental experience and written words are the symbols of spoken words. Just as all men have not the same writing, so all men
have not the same speech sounds, but the mental experiences, which these directly symbolize, are the same for all, as also are those things of which our experiences are the images" (McKeon 40).

Irvine describes this as Aristotle laying the basis for the intersubjective ground of a language community for which utterances are signs for both mental experiences and actual things (Irvine 32). Within the language community, the most enduring contributions of Aristotle to written language lie in the *Poetics*, and the works that support it *De Interpretatione*, *Metaphysics*, and *Nichomachean Ethics*. In the *Poetics* Aristotle explains the essence of the universal nature and composition of literature, and its significance. In the *Categories*, *On the Soul*, *Physics*, the *Metaphysics* and the *Nichomachean Ethics*, Aristotle develops his position on human nature and poetry. These positions became the standard equipment of the literary tradition. Aristotle’s works provided the discursive foundations for treatments of literary genres (Irvine 33). Aristotle considers them to be vehicles to a higher understanding of ourselves of used correctly.

The fundamental thought of Aristotle’s philosophy is Becoming: not Being. And Becoming, to Aristotle, meant not an appearing and a vanishing away, but a process of unfolding of what is already in the germ, an upward ascent ending in Being, which is the highest object of knowledge (Butcher 160). Aristotle’s theory of

---

1 The general consensus among Aristotelian scholars is that the existing works attributed to Aristotle are most likely compilations of the teachings of his school, and not necessarily his direct writings. It is likely that at least some of his works were lost entirely. Therefore in order to understand the meaning of the *Poetics*, or any other of Aristotle’s works, it is necessary to consider the overall philosophy (context) in which the *Poetics* is situated.
Becoming is based on the idea of knowledge being the human goal (Metaphysics Bk. 1 Chap. 2 982b 5,10). The highest knowledge is wisdom, and wisdom is a knowing of universals: ‘wisdom is knowledge, combined with comprehension of the things that are highest by nature’ (Nich. Ethics Bk. 6 Chap.7 1141a1-20, 1141b 1-10). And one of the highest universals is that of God (Metaphysics Bk1 983a 1-10).

“Humans learn through imitation (mimesis) which is instinctive. Through imitation humankind learns its earliest lessons from other humans. Humankind receives no less pleasure in the mimesis\(^6\) of things outside of themselves. Thus, the reason that humans enjoy seeing a likeness is that, in contemplating it, they find themselves learning or inferring and saying perhaps, “Ah, that is he” (Poetics IV 1448b5). The poet, being an imitator like a painter or any other artist, must of necessity imitate one of three objects, —things as they were, things as they are said or thought to be, or things as they ought to be. The vehicle of expression is language” (Poetics xxv 1460b12-20). “The common original, then, from which all the arts draw is human life,—its mental processes, its spiritual movement, its outward acts issuing from deeper sources; in a word, all that constitute the inward and essential activity of the soul” (Butcher 124). Art and literature put humans in a pleasurable state in which they may contemplate and learn about themselves.

From late Antiquity to the early Middle Ages, Aristotle’s views on common and figurative language and the nature of poetry, became the common property of

\(^*\) Mimesis: mimicry, imitation art (Peters 119)
both literary and philosophical traditions. He distinguishes between rhetoric, dialectic, and poetry. Rhetoric, the art of persuasion, is concerned with arguments for finding proofs. Poetics, the art of composing poems, is concerned with mimetics. Dialectic, the system for demonstration of opinions using syllogistic route. Each comprises an essential representation of language in human actions. All three have available to them the eight uses of nouns: the difference between them lies in their use of lexis.

Lexis in the simplest sense can be viewed as the assembly of parts of language in writing used in rhetoric, dialectic or poetics. The method of delivery, the use of metaphor (words) and the purpose of the language are the functions of the format of lexis. The organization of lexis along modes of speech is left to rhetoric which is seen as the counterpart of Dialectic (logic). Aristotle defines rhetorical as "the faculty of observing in any given case, the available means of persuasion" (Ricoeur 30). Rhetorical prose should not be too much like the language of poetry. Rhetoric draws from popular opinion and uses metaphor to instruct by suddenly combining elements that have not been put together before.

In poetry, the lexis falls under diction and is the combination of verses that moves the plot (mythos) of the story forward. The lexis serves to express the thought which is what the character says in justifying his actions (Ricoeur 34). Through the process of mimesis (imitation), the parts of tragedy are formed. The subordination of plot to imitation gives the stylistic process a global aim comparable to rhetoric's intention to persuade. Metaphor, as a deviation in poetry, represents nothing but a
difference in meaning. Reality remains a reference without ever becoming a restriction. Therefore a work of art can be judged on purely intrinsic criteria without any interference (contra Plato) for moral or political considerations, and above all without the burdensome ontological concern for fitting the appearance to the real (Ricoeur 40). Dialectic is an approach of reasoning from a known premises of general opinion to a new and valid conclusion using speech (Peters 52). Using the opinions held by a wise human, Aristotle describes in the *Metaphysics* the process by which a dialectic investigation seeks to find an understanding of a problem (McKeon 715-717). Dialectic is closely aligned to rhetoric because it is one of the functions of persuasive speech. The analytical framework that Aristotle describes for language and literature was central to the development of Western thought.

2.5 The Role of the Stoic Philosophers

The Stoic philosophy spanned a five-hundred year period in Hellenistic history (301B.C.-263A.D.). Only fragments of their writings are left and it is through a piecing together of what does exist, and conjecture, that we can judge their theory. That being said, there is a consensus that the Stoics determined the framework for the literature and writing that was used in the Hellenic culture (Hallie 19; Irvine 34, Robbins 14).

The Stoics were the last to consider grammatica (language and literature) as part of philosophy. Their theory came after Aristotle and can be regarded as a reaction or a response to Aristotle and Plato. By the end of their philosophy, largely
due to their efforts, grammatica had been established as a literary system for the interpretation of texts. The theoretical ideas and concepts that the Greek Stoics codified became the basis for Roman Stoicism and early Christian language, writing and literature.

Zeno, the founder of Stoicism, was opposed to the dualism between matter and spirit as he perceived it in both Platonism and Aristotelianism. He proposed a philosophy in which matter and spirit are identical (Colish vol.1: 9). Stoic philosophy is divided into three main branches: physics, logic, and ethics. They maintained the traditional attitude that ethics is the most important part of philosophy. The grammatical and literary theory of the Stoics is best understood within the context of their philosophy which promoted a natural rhythm. Since the natural order is always in a state of change, they preferred to explain the relationships between words and grammatical structures as resemblances in which variety and anomaly are to be expected (Colish vol.1:57). The natural order is the aspect of God that they refer to as logos. Logos, the rational structure of the universe, is one of three universal aspects; the other two are pneuma, the fiery or warm breath of life – the creative fire, and tomos – the virtual tension holding each thing together within itself and making the universe cohere (Colish vol.1:23).

The three branches function separately and are connected through logos. Physics is to overcome the dualism between mind and matter taught by the Greek philosophical schools (Colish vol.1:23). Ethics is integrally and organically related to physics. Man strives for harmony in nature and through logos he has the ability to
achieve this goal (Colish vol.1:36). Logic deals broadly with the way men think and speak about nature. At all points in the cosmic cycle the *logos* is equally present in the universe (Colish vol.1: 25).

Man’s logos is described by the Stoics as his *hegemonikon*, or ruling principle. Just as the divine logos (rational) or pneuma (warm breath) permeates the whole universe, so the human *logos* or *pneuma* permeates human’s entire being and accounts for all his activities (Colish vol.1:27). The word is always a harmonious (rational) state because the logoi contain within them the germs of everything they are to become. All events in the universe are bound by strict rules of cause and effect (Colish vol.1:31). Free will is essential in Stoic philosophy and, because of this, the Stoics concluded that although man is determined by his given nature, he is free to act in terms of it (Colish vol.1: 35). Divine logos is the ruler of the universe and man, because he is a part of the divine, is also free. Logos in man plays the same directive role as logos in God. Man is able to achieve the goal of ethics—harmony in nature, because of his divine logos—his being a part of the divine. Because all men have a common possession of a fragment of the divine reason (logos) all men are by nature equal.

In the branch of logic all mans’ faculties are activated by the ruling pneuma the rational logos (Colish vol.1: 51). The senses, the reason, and the universe outside the subject are all aspects of the logos which is mind and matter at the same time (Colish vol.1: 52). The aim of the Stoic theory knowledge is to judge the data it
receives and to accept or reject an idea as good or bad on the basis of reason (Colish vol. 1:52).

Their attitude toward language, which came under the branch of logic, was a reflection of their philosophy. A partial record of Stoic *grammatike* is contained in the important treatise, *Techne peri phone (Handbook on Speech and Language)* by Diogenes of Babylon (140 B.C.). Diogenes’ work makes it clear that the Stoic concept of *grammatike* provided the foundation for much of Roman *Ars Grammatica* (Irvine 34). The Stoics completed the final details of the grammatical structure of the written Greek language. They broadened the framework of grammar to one of linguistics in the following ways: they made it the symbolic (written) reflection of psychological processes; they established the concept of the signified and the signifier; they acknowledged the existence of an inner and outer form of meaning and; they developed a phonetic system that looked at the difference between oral and written speech.

The philosophical theory was constructed by a division called the *dialectike* that they defined as the science of “things signifying and things signified.” This drew a sharp distinction between language and logic (Colish vol. 1:53). They saw language as a vehicle of meaning. The structure of words in writing became a main part of this first Western linguistic theory by falling under the heading of things signifying (*phone engrammatos* or *lexis*). The notion of “articulated speech” presupposes that a rational structure underlies spoken utterances and that intelligibility depends on a system of structured units (Irvine 35).
The Stoics define language as utterance. Language is sound. It is material and corporal, and it has a direct and natural correlation with the physical realities it signifies (Colish vol. 1:56). Lexis, composed from an alphabet of twenty-four letters, was the means of forming written expressions for use in speech. Stoic speech and theory relied on the analogy of writing. As a form of logos, poetry was considered a vehicle for the highest form of knowledge because poetry was thought to disclose, in its mimetic mode of signifying, the underlying nature of things. This view is very different from that of Plato, who as we have seen, felt that poetry because of its language could obscure the truth. For the Stoics, wisdom was defined as the knowledge of things divine and human, and poetry was thought to be the mimesis of things divine and human.

The Stoics expanded the Platonic theory of logos and went on to classify two systems for interpretation: one system was an interpretation based on the level of the lexicon—the source of the word (etymology), and the second was based on the broader level of discourse: the textual allegorical context. In this second method texts were deallegorized following a specific philosophical code.

Logos had three aspects. It could represent a structure in nature in which human reason is a manifestation (descriptive). It could be a significant statement of a thought process expressed in form of a proposition (logic). It could be internal logos—man as an agent of thought—it that structures speech and all forms of discourse. Logos was built from sound (phone) of which there were two types, animal and human. Unlike animal phone, human sound forms an utterance of thought. It is a
cognitive act. In writing, these single sounds are resolved into atomic graphic units called lexis. Lexis is the verbal expression in a written alphabetically constructed form. The alphabetic elements (letter) of lexis had three senses: the element of sound, the written symbol and the name of the letter. Language theory was based on a written system which codified oral sound and recorded it. If the words that made up the language make sense they were called logos, or language, the expressive side of the rational logos in man which corresponds to the logos of nature (Colish vol.1: 56).

Logos was understood to be disclosed in the structure and lexicon of a language that was assumed to bear the imprints of natural links. Since there is a natural correspondence between words and things, the derivations of words (etymology) and sounds of words (onomatopoeia) provide insight into the nature of the things they signify. The premise of a natural link allows for the use of allegory in literary works. For example, sun is allegorical for Apollo which translates “as from other places” and the sun rises and sets in other places (Irvine 37).

The semiotic nature of the Stoic philosophy, as seen in their use of allegory (underlying meanings), is based on a metaphysical system that was part of a theoretical framework in literary works (Irvine 36). A work of literature should be visibly mimetic in terms of character, actions, passions and situations and at the same time conform to nature and truth. Nature is represented in human discourse. Discourse is the vehicle through which meaning is transmitted. Logos is the structure of discourse. Poetry is a sign of deeper structures in the nature of things. The
assumption is that poetical and musical verse, meter and rhyme best approaches the
truth of divine things: imitative and oblique language alone can suggest the nature of
divinity (Irvine 38). This view is in agreement with Aristotle’s that poetry expressed
most adequately the universal element in human nature and in life. Poetics is not
concerned with fact but with what transcends fact; it represents things which are not and can never be in actual experience. It gives us the ought to be, the form that answers to the true idea (Butcher 163,168).

Unlike Plato, the Stoics took the position that poetical language makes
explicit the nature of logos and that the reader is aware of the relationship between
language and nature. Poetry does not obscure truth, but in fact reveals truth. Logos
at a certain rhetorical pitch becomes self disclosng. The reader is aware of the use of allegorical nature of the language used in the text. Because the sign for the Stoics is closely related to a medical symptom or religious portent, the philosopher becomes the exegete (explainer), grammarian (classifier), and interpreter of oracles (Irvine 36-39).

The linguistic and textual objects constructed in Aristotelian and Stoic
discourse were formalized and systematized in the Alexandrian Techné-which organized the whole of textual culture in the library. The library and museum became the most authoritative center for textual culture in the late classical era. Demetrius of Phalerum (354-283) governor of Athens and student of Aristotle came at the invitation of Ptolemy to set up a library. The library was to include all the writings of the world which were to be translated into Greek (Irvine 40). The
Alexandrian library and institution were royal foundations, sponsored by the Ptolemys of Egypt. (Later, in the Roman era, the library became a public institution whose head priest was appointed by the emperor.) The Alexandrian textual culture established the hierarchy of both texts and grammatical studies which extended from the late Classical to early Christian era.

The hierarchy of texts was formed by the selection of texts that were to be copied and translated into Greek. An intimate association between the writing material—parchment and grammatica—and book production came into being. This association was the basis for the dissemination of scholarship into the fifteenth-century, roughly five-hundred years. (The basis on which texts were chosen to be copied is the subject of another discussion.) Those texts that were copied became the foundation for education and are our only textual record of the past.

Grammatical studies were divided into two orders. The lower order consisted of elementary reading and writing. The higher order focused on exegesis, the study and interpretation of literature (illustration of a time line). This method of education produced four functions of textuality that were carried over into the Roman culture with the writings of Dionysius who wrote during the first-century B.C. The functions are as listed below:

1. Promotion of a literary canon. The library had a system of texts which were classified by category and a hierarchical order. The origin of the classical text comes from the idea of a literary canon.
2. Text correction and transmission. Transcribers sought to restore texts to their original order.

3. Study of literary language. Scholars took on the function of guardians and preservers of texts: they learned to read aloud from texts which had no punctuation marks as do our contemporary texts. Grammatical studied were not about learning the contemporary spoken language.

4. Exegesis and criticism. The writing of commentaries and critical works. Exegesis and criticism consisted of the interpretation and criticism of esthetic, ethical and political work and judgment on an authoritative basis. They fell under a concept known as wide learning which meant that a scholar was expected to be able to produce commentaries in a number of different fields.

In the first-century B.C. Dionysius wrote the final format for the grammaticae that was translated by the Romans into Latin. In the Dionysian system study consisted of five main elements. The first element was the text as read – learning to read the written text aloud as it was intended. The second element was the interpretation of the text; understanding the references. This in contemporary literary analysis can be seen as the reading of Chaucer with the understanding of the cultural references of the time which allows for an understanding of the meaning behind the metaphors. The third element was the Glossai/Historica—understanding specific words unique to a text and the ability to interpret texts in general. A scholar should have a broad base of learning and be able to interpret texts from many fields. The fourth element was concerned etymology, a scholar should have an understanding of the origin of words
and their meaning. And finally, the fifth element was exegesis, the criticism of poems. After Dionysis Thrax and his work *Techne grammatica*, *grammatica* was defined as the comprehensive art of literary exegesis and criticism. It was considered its own discipline which had as its principle function grasping the meaning of a text (Irvine 47).

### 2.6 Conclusion: The Power of the Written Word

The Greeks developed the system of writing that has been used in Western culture since 500 B.C. Three voices have dominated in the formation of textual culture in the Greek tradition, Plato, Aristotle and collectively the Stoics. Each made a significant contribution to a specific aspect of the grammar of speech, writing, and literature that developed as the culture moved from an oral society without writing to an oral society based on writing.

Plato's contribution is his discussion of logos, discourse and the authority of the text. He is keenly aware of the difference between writing and speech and the tensions which naturally arise between oral communication and writing. In the hierarchy of communication, mental speech is the highest as the originating thought followed by oral speech and then by writing. The function of writing is to capture the spoken word. The degree to which a word may vary form mind to speech, and then to writing is the degree to which the transmission is truthful in its mirroring of the intent of the mind, and is subject to the interpretive nature of writing. Writing as a permanent record of speech can be reflected upon. Writing also replaces memory as
the repository of knowledge, giving text authority over speech that threatens to
reverses the order of the hierarchy. The degree to which a word may vary from the
mind to speech, and then to writing is the degree to which the transmission is truthful
in its mirroring of the intent of the mind and subject to the interpretive nature of
writing.

Aristotle's contribution stresses language and its power; its power for poetics,
for rhetoric and for ethics. Aristotle accepts the reality of a society based on writing;
he is philosophizing from within a framework that strongly advocates writing. As an
aporetic thinker interested in solving the various questions of the universe in a non-
systematic way, Aristotle's conceptual framework uses writing as a reference tool for
the universe rather than a structured system for writing. His acceptance of writing is
based on its foundation in ethics. Language is a tool of knowledge that will lead to an
understanding of the self and God. He identifies the three significant functions of
writing: rhetoric to persuade, dialect for investigation and poetry for emotion that
leads to higher understanding.

Building on the conceptual framework, in which the universe was conceived as
two dimensional, of Plato and Aristotle, the Stoics laid out a formal system for
language that encompassed speech writing and literature. They introduced the
concept that articulated speech presupposes a rational structure. Their system assumes
that there is a cognitive, rational structure underlying speech, a deep structure that
speech is either capturing, or not capturing. The complex structure of language that
they outlined was designed to reflect precisely the conceptual placement of an idea
within time, space, and mood as a mental and physical reality. The Stoics bring up

canon formation; they develop a system for compiling, preserving and interpreting

representative cultural literature through their educational and library system. The

Stoic system of language was based on the complexity of human nature as expressed

in thought through language. Language was contingent on the intent of the speaker.

As a tool of the system of language, writing, as a part of the larger system, could be

used in a variety of ways to serve a number of purposes both ethical/good, as well as

unethical/bad. Stoic philosophy recognizes that people are free to choose how they

wish to use language. The canon established by the Stoic tradition is the basis for the

Western literary and linguistic tradition.
CHAPTER THREE
THE EARLY TO LATE MEDIEVAL PERIOD

3.1 Introduction

The knowledge of language and the literary canon of the Greeks was transferred to the Romans. The Alexandrian library disappeared, and the Roman Empire itself drew to a close. By 500 A.D. the Roman Empire no longer functioned as the connective force for political and cultural stability in Europe. The last of the Roman Emperors had been deposed and Theodoric the Great (454-525), King of the Ostrogoths, became the ruler of Italy. Because there had been a long period of transition, the literary legacy that had been developed from the ancient classical to the late classical age was carried into the Medieval Period through the textual collections of the Jewish and Christian faiths. The first section of this chapter will establish the chronology of this transition period. The second section will focus on the development of a textual culture in Western Europe, England and Ireland during the second half of the first millennium that led to the ideas of William of Ockham and the rise of the vernacular and the printing press in the fourteenth and fifteenth centuries.

3.2 Part I: A Chronology of the Transition Period

Terentius Varro (116-27 B.C.) is both one of the earliest and the most influential writers on the Latin language. In his celebrated work, now lost, Disciplinarum libri IX, he explained the nature and object of the nine fundamental sciences: grammar,
determined that meaning in language is based on current usage. His view on the nature of meaning allows for both the Stoic view of anomaly, based on physical realities, as a series of unique and changing events, and the Hellenistic view of the Alexandrian school that is based on analogy. The sense of meaning depends on the use of the word (Colish vol.1: 321).

Varro identifies language as sound. His definition of sound or voice is that it is the sound of utterances on the ear. Voice is not viewed as being in a continuum of sound vibration but as a substance coming to the ear. Voice in this view is a passive receiver. Varro’s etymological analysis of words is that there is a natural correspondence between nature and things. He is not as interested in the source of a word as in its actual use (Colish vol.1: 323).

Varro lived and wrote his major work on language the *De lingua latina* (47/45 B.C.) during the last republic of Rome and the beginning of the Roman Empire. His work took all or most of its terminology from the Greeks (Robins 48). He was considered the leading authority on Latin grammar within twenty years of his masterwork, a reputation which he maintained until the early Middle Ages (Colish vol.1:324). He was the first of what Irvine refers to as the six grammarians¹ who established the language and literature that were used from the beginning of the Roman Empire through the late Middle Ages (Irvine 49).

¹ The grammarians of the early empire were Varro, Suetonius and Quintilian; those in the late empire, the fourth and fifth-century, were Donatus, Charisius and Diomedes.
determined that meaning in language is based on current usage. His view on the nature of meaning allows for both the Stoic view of anomaly, based on physical realities, as a series of unique and changing events, and the Hellenistic view of the Alexandrian school that is based on analogy. The sense of meaning depends on the use of the word (Colish vol. 1: 321).

Varro identifies language as sound. His definition of sound or voice is that it is the sound of utterances on the ear. Voice is not viewed as being in a continuum of sound vibration but as a substance coming to the ear. Voice in this view is a passive receiver. Varro’s etymological analysis of words is that there is a natural correspondence between nature and things. He is not as interested in the source of a word as in its actual use (Colish vol. 1: 323).

Varro lived and wrote his major work on language the *De lingua latina* (47/45 B.C.) during the last republic of Rome and the beginning of the Roman Empire. His work took all or most of its terminology from the Greeks (Robins 48). He was considered the leading authority on Latin grammar within twenty years of his masterwork, a reputation which he maintained until the early Middle Ages (Colish vol. 1:324). He was the first of what Irvine refers to as the six grammarians who established the language and literature that were used from the beginning of the Roman Empire through the late Middle Ages (Irvine 49).

---

1 The grammarians of the early empire were Varro, Suetonius and Quintilian, those in the late empire, the fourth and fifth-century, were Donatus, Charisius and Diomedes.
The Roman grammarians established the linguistic usage of words, a literary
canon and the authority of the text as an agent of social and political power within the
culture. Language and literature had four applications: reading, interpretation,
emendation and criticism. The institutional aspects of the grammatical models
established remained until the rise of the vernacular in the later Middle Ages. The
idea of the literary canon has remained until the modern day. Roman grammarians
translated and synthesized the language constructions of the Hellenistic and Stoic
traditions of the Greeks into Latin. Language construction and literature in
Quintilian’s words was “the science of speaking correctly and the interpretation of the
poets” (Irvine 53). As noted earlier, Varro and later Suetonius’ grammatical models
and Quintilian’s rhetorical models kept the structural model established by the Stoics
and imbued it with Hellenistic philosophical content. In addition, they established a
Roman national literature that could stand with the Greek literature as exemplified by
Homer. The commentaries of both Quintilian and Suetonius record the establishment
of the canon and the social position that followed from inclusion to it (Irvine 50-53).
In the later part of the empire the canon of language and literature, based on the
combined models of Varro and Quintilian were incorporated by Donatus, Charisius,
and Diomedes into three types of texts: encyclopedic treatises, school texts, and
inflection guides for native speakers. These texts were designed to enable the reading
of the literary canon (Irvine 58-60).
3.2.1 Late Roman A.D. 1-400

Within a fifty year period the poets Virgil (70-19 B.C.), Horace (65-8 B.C.), and Ovid (43-A.D.18), as well as the historian Livy (59-A.D.17), and the statesman philosopher Cicero (106-43 B.C.) all wrote, producing some of the world's finest literature. Of the epic poets Virgil has retained, since his day, the reputation of the finest Latin epic poet. In his poem the *Aeneid*, which was published in 15 B.C., he depicted the legend of Aeneas and the founding of Rome. Part of his eminence is attributable the social relationships perpetuated through grammatica when considered as a social practice. The grammarians as a social group were the overseers of the Latin textual community. They were responsible for the Canon of approved texts, the curriculum and ideological programs in the schools and the social practices of the literati in relation to a written tradition.

As Comparetti remarked in reference to Vergil's wide acceptance on the grammatical schools: It is difficult for anyone who has not made a special study of the conditions of culture at this epoch to form any idea of the power and influence of the grammarians... [I]t was the grammarians who selected the canon of poets that through the medium of the school and by no other way, has come down to us. Many works which have been lost would not have been so had they had the fortune to be used as textbooks, just as many works have for this reason alone been preserved. The late Imperial grammatical program promoted Vergil as a national scripture. From the first-century on he was promoted as the primary authority on grammar and the text to rival Homer as a cultural summa (Irvine 79-80).

His work was an integral part of the canon of medieval Latin grammatical culture. This was due in part to it being the basis of the *ars grammatica* of Donatus.
Stoic with respect to his conception of fate and free will, yet un-Stoic in the
delineation of the epic hero, Vergil faced no obstacles in the transmission of his
perspective on either of these topics after his death. St. Augustine’s estimate of
Aeneas as a Stoic sage may have led his own immediate posterity to exaggerate or to
misrepresent this aspect of the epic—one which should be assessed in terms of Vergil’s
integrating the Stoic doctrine of fate and free will into a non-Stoic vision of life that is
completely his own (Colish vol. 1: 252).

The works of the statesman Cicero were another part of the Roman literary
legacy that was incorporated into the canon of the medieval scholars. While the most
recent commentators have reached no consensus on Cicero’s overall merits, goals and
allegiances as a philosopher writer, they have none the less produced a striking
revaluation of his place in intellectual history, to the point where one contemporary
scholar has been able to state with no fear of contradiction that Cicero’s philosophical
writings, “exercised inestimable influence on Western civilization, and constitute the
most important portion of the body of his works from the historical point of
view...and helped to shape the Western way of life’” (Colish vol. 1: 66). Although his
philosophical works were not enthusiastically received by his contemporaries, who
had no desire to read his translations of Greek philosophy embedded with his own
political attitudes, the Christian apologists and Church fathers found in his dialogues a
convenient shortcut to Greek philosophy and a rich source of information on pagan
theology and religious practices. It is largely thanks to the apologists and Church
fathers that Cicero’s philosophical works were preserved and that he became the most influential ancient Latin prose author during the Middle Ages.

In the development of a canon of works those of the satirists Horace, Percius and later Juvenal were all read by Medieval scholars, as well as the epic works of Lucan (A.D. 39-65), Statius, and Silas Italicus. The Roman society of the time also produced a number of historians, many of whose works were also preserved and read in the Middle Ages. At the same time the growing Christian community began to develop a textual culture that was based on an understanding of the Hebrew scriptures and those of the new scriptures regarding Christ.

Clement of Alexandria (A.D. 215) is the earliest to write in this manner. His work is based on an allegorical method of interpretation that is self perpetuating. Three important elements of Clement’s method are: all writing is interpretive; all interpretation is allegorical; interpretation of allegory is always written and it reveals the underlying meanings of the text before it. Origen (185-254) his pupil, wrote over eight-hundred works in which he systematically developed an allegorical grammatical system. This system was based on his idea of the eternal gospel which was a cross referencing system that allowed a rewriting of the plot of the Hebrew scriptures. The system of exegesis is made possible by the existence of the authority of an orthodox institution which provides a regulatory master text (Irvine 262-267). The master text of the early Christian authority censured Origins writings. They were not included in the canon of texts sanctioned by Augustine and possibly as a result of that non
inclusion in the educational system, none of his original writings are in known existence today and what we know of him has come down through translation.

The Latin Grammar that we know today is based in large part on the *Ars grammatica* of Aelius Donatus (330-360). It is comprised of two volumes the *Ars Maior* and *Minor* and is based on the text of Vergil's *Aeneid*. It is from his model of the metaphor that the medieval notion of allegory developed. Donatus' *grammatica* was the preeminent grammar used in the Middle Ages. Its popularity remained constant even after the reintroduction of the grammar of Priscian in the eighth-century in the school of Alcuin. His work formed the backbone for the education of all those who wrote in Latin after the Roman Empire.

Augustine (354-430), Ambrose (340-397) and Jerome (347-420) were all contemporary to Donatus who lived during the final decades of the Roman Empire. The persecution of the Christians had long ceased (with Constantine in 300) and the foundation for Catholic orthodoxy was being developed. The seat of Roman government had at this point been moved to Constantinople.

Ambrose was a highly influential doctor of the Church and bishop of Milan. He was a great biblical scholar and is also credited with helping to resuscitate the *De officiis* of Cicero. His lectures on scripture inspired the conversion of Augustine who had moved to Milan from Rome in 384 to teach Rhetoric. In Milan Augustine met Ambrose, who taught him the Alexandrian method of exegesis that explained the enigmas of the Hebrew scriptures for him (Irvine pg. 171). This understanding enabled Augustine to create Christian orientation towards discourse that allowed for a
complex reading of the scriptures in a tropical and figurative way. The scriptures, which were being translated by Jerome (347-400) in Bethlehem, could be interpreted within the discipline for grammatical and rhetorical discourse.

The formation of a Christian grammatica was based on Augustine’s education in the traditional Latin and emerging Christian culture. He was knowledgeable of Vergil and the main Latin philosophical ideas of the day. Cicero’s dialogue the Hortensius was the impetus for his search for wisdom which lead him finally back to God (Marcus 198). The social environment in which Augustine developed his model of grammatica reveals that interpreting texts, charged as it is with competition and conflict, always entails promoting the power and authority of a textual community through a method of reading and interpreting an authoritative set of texts (Irvine 169). The technique that Augustine employs to achieve this is grounded in the logic and linguistic theory of the Stoics.

In terms of Augustine’s argument, the origin of grammatica lies in an initial semiotic awareness at the very origins of human consciousness. Signification is broken down into the sensible sound, the faculty of hearing, and the mind which alone imparts meaning. The perceptible signs of language are necessary for communication since minds cannot experience other minds directly (Irvine 173). He laid this philosophy on top of the Latin grammatical model developed by Varro. (Donatus’ model had not yet superseded Varro’s.) Augustine’s importance to the psychodynamics of language lies in his view that grammatica is a part of a larger function of language. Like the Greek philosophers Plato and Aristotle and the Stoic tradition he was
interested in the metalinguistic function of language. Augustine’s philosophy, based on Neoplatonic ideas, is divided into rational philosophy (logic), natural philosophy (physics), and moral philosophy (ethics). Irvine feels that because Augustine had only a basic understanding of Greek grammar, and not the literacy of the higher level, his understanding of the original works of the late Classical Greeks was imperfect. That aside, he developed, through his works, the idea that there is a triadic association in the production of meaning: there are the words, the inner mind of the speaker and the actual things or realities that the signs call to mind (Irvine 174). For Augustine, conventional signs are also physical and they likewise correspond with the things they signify. But, unlike automatic natural signs, conventional signs are used deliberately by animate or intelligent beings to express their ideas, intentions and feelings to other beings. Like natural signs, Augustine’s conventional signs may be non-verbal. But he concentrates on verbal signs because his goal in the De doctrina Christiana is to teach hermeneutics and preaching. Both the authors of the bible and the pastor in the pulpit convey their messages through words which are conventional signs used to convey knowledge to men (Colish vol.2:185). The reason that there is not endless semiosis is that semiosis is interrupted and transcended by the intervention of the inner teacher, the Word or wisdom of God who illuminates the mind with universals that come from no external designata and are not generated by the empirical memory: the inner teacher uses “external signs inwardly converted to him” (Irvine 175).

The pragmatic application of his theories is revealed in the De doctrina Christiana which he began to write in 396. The first three books provide an
introduction to the study of sacred scripture and the fourth book is devoted to the teaching of religious truths which it contains (Van Steenberghen 23). In this work he establishes the emphasis of Christian philosophy on authority rather than reasoning, and faith rather than understanding. A disciple of Christ cannot content himself with the philosophy of the pagans, that is, with a purely rational synthesis; he needs the higher synthesis of reason enlightened by faith in divine revelation and hence a synthesis based on the wisdom of God himself. The highest science, for the Christians, is then the science of the Scriptures, the study of the word of God. The whole Christian synthesis must then be organized around the science of sacred the sacred books. The biblical exegete must make use of the profane sciences of the pagan philosophers, even those concerning ethics and or religion: all this knowledge can assist the Christian scholar in his study of the sacred text (Van Steenberghen 24). Philosophical concepts and intellectual concepts are of interest to him only in so far as they serve to support a Christian scriptural doctrine. He became the first to separate theology and philosophy as two separate disciplines.

The culture of the late Roman Empire, (which was dissolving as Augustine wrote), was rooted in literacy and devoted to its classical literary texts, especially those of Homer and Vergil. Wisdom belonged to the works of the imagined great Roman writer. There was a great consciousness of the past and a resentment to changes in language form or content because of a desire for the purity of the classical period. Augustine therefore made the bible the supreme text which surpasses in complexity, style and meaning of the works of the greats. His new Christian
grammatica included texts by one of two strategies: (1) a method for interpretation that provides the bible as the center of Christian learning and; (2) a method of neutralizing the pagan content in classical texts. This approach is outlined in the preface to *De doctrina Christiana*. For Augustine's semiotic signs and things share in a common ontology since things can become signs; that is things referred to through textual signs can also become signs of something else. That is the foundation of typology. Writing is a means to postpone and extend signification outside the limits of spoken utterance. It is an externalization of memory. He utilized all of the exegetical tools of the day and prepared an extensive system for the literary interpretation of scripture as both an allegorical and metaphorical construction. Grammatica became the necessary instrument and custodian of textual memory (Irvine 184-188).

Augustine's theological orientation placed the doctrine of Christianity as the central theme of his work and in formulating that doctrine he drew upon his vast knowledge of philosophy combining the ideas of Plato, Aristotle, Cicero and Stoic philosophy. Using the terminology, logic and linguistic structure of his time, Augustine produced a theology that met the intellectual requirements of the culture of his day. It was a written doctrine that was designed to be preached. Augustine, who was at the threshold of the medieval world, assured a systematic transfer of the culture
into the medieval world by including the Latin literary canon in his Christian literary canon.

3.2.2 A.D. 500 -700

Priscian, the last of the great grammatical writers (500), worked out a voluminous compendium of everything grammatical in Latin. He held the opinion of Aristotle that there was no meaningful unit smaller than a word. Modern linguistics holds the smallest unit to be a morpheme. The encyclopedic work of Priscian and the text of Donatus formed the link to the medieval study of Latin. The return of Priscian's comprehensive work during the Carolingian Renaissance coincided with the translation by Boethius of that slim volume of Aristotle, *De Interpretatione*. The return of these two works to the collection of ideas in European thought was the prelude to a shift in philosophical focus that led to the age of the Renaissance.

His work was used extensively by Isidore of Seville (560-636) who wrote the definitive book on the principles of explanation the *Differentiae* and the *Etymologiae sive origines* which is an extensive work covering all the uses and applications of grammatica. The thoroughly textual function of grammatica for Isidore's community of monks and fellow bishops is indicated throughout Isidore's works. Isidore who himself had access to and had read much of the secular canon forbid others to do so in the monastery. He had great concern for linguistic and semantic precision for establishing a scientific basis of meaning-this would help in establishing the orthodoxy of the Church which continued to be affected by heresy. His dialogue
concerning pronunciation was directed at readers of Latin texts who read in their own native pronunciation. The unique significance of his work is his encyclopedic compilation of existing materials. As a compiler it is the author as writer who sets up a dialogue between prior texts, and the interpretive discourse of his own community, by selecting from a wide range of texts that form the library (Irvine 209-243).

Cassiodorus (500) was born into a powerful Roman family and held a high rank in the Ostrogarth kingdom. After the collapse of the Ostrogarth kingdom (537 - 540) he retired from public life and founded a monastic community at Vivarium in 554. Later, at the age of ninety three he wrote a grammatica for the community of scribes and readers at Vivarium. In his textbook on grammar he equates the authority of the grammatica with Roman law, and uses the scriptures like a religious encyclopedia. In his library resided three important Latin bibles. One of these the codex grandior named for its large seventy volume edition was brought to the monastery of Wearmouth-Jarrow in England in 678. The direct influence of his grammatica can be seen in the works of Isadore of Seville who was the final codifier of the grammatica known universally throughout the Middle Ages (Colish vol.2: 249-252; Irvine195-209).

Anicius Manlius Severinus Boethius’ (480-524) life’s work was the task of translating all Plato’s and Aristotle’s writings into Latin. In this scheme, philosophy is divided into four main areas: logic, theoretical philosophy, practical philosophy, poetic philosophy. The sciences of physics, mathematics, first philosophy or theology fall under theoretical philosophy and ethics: politics, and economics fall under
practical philosophy (Van Steenberghen 22). A contemporary and associate of Cassiodorus, he himself was not an original philosopher in the sense of the ancient Greeks, or a theologian in the sense of Augustine. However, through his prolific translations and commentaries he exhibited a profound influence on one hundred fifty years of thought when his work resurfaced between 1000-1150 (Knowles 328-329).

His commentary on Porphyry's commentary on Aristotle's *Categories* in which he gave the answers of Aristotle and Plato to the problems of universals initiated the great controversy on universals in the eleventh century in the Scholastic school of thought. At the time of his execution for calumny, he had completed the translation of Aristotle's *De Interpretatione*, and *Categories*. The Aristotelian division of philosophy was handed on to the medievals through his translations.

Once considered a Christian martyr Boethius is now considered to be more typical of the late Roman upper class. He moved in a society that was a mixture of Christianity, Neoplatonism, Peripateticism and Stoicism. His *Consolation of Philosophy*, written while he was in prison awaiting his death, reveals an outlook that was more Stoic and Neoplatonic in outlook. His commentaries show him as the last Christian Latin thinker of his age to address philosophic questions as such with an integrally philosophic outlook. Most of the thinkers of his day adjusted their philosophical ideas in an uncritical manner to suit their personal needs. His commentaries blended and acknowledged the different viewpoints of the extant ideas of the time. He is in agreement with the major philosophers in his interpretation that the Stoic philosophy is defective because it fails to describe the formation of concepts.
(significationes intellectum), the chief signs of the things man knows (Colish vol.2:266-71). His translation of Aristotle retains the sense that the mind is passive in the reception of sensory information. In her analysis of Boethius, from the point of view of Stoicism, Colish emphasizes that the translation themselves by Boethius are accurate and that it is his commentaries that are influenced by his personal amalgamation of current philosophies (Colish vol.2:266-71).

### 3.2.3 Conclusion of the Transition Period

The transition period, that encompassed a seven-hundred year-period, spanned the beginning and end of the Roman Empire and the Rise of Christianity. The study of grammar and literature played a significant role in the shaping of the existing Roman culture and the emergence of a the new Christian culture. The role that language, in an all-encompassing sense, played in the development of a culture can be most easily seen through historical moments. These moments in Roman and early Christian culture, when compared to the Greek development of writing, begin to reveal some universal qualities of the nature and use of language.

Varro translated the Greek grammatical system into Latin and established the foundation for the seven liberal arts. He blended the structure of the grammatical construction and adopted the canon as established by the Stoics and Hellenistic philosophies. The educational system set in place by Varro and Suetonius and Quintilian for Roman education was based in the teaching of the arts of reading, writing and speech. The Roman political system fostered literacy and sponsored an
empire wide network of schools that provided a basic level of education for all citizens. Universal literacy established positions within the social structure for a rising middle class, as well as professions that were suitable for slaves.

The Grammarians were a specific set of educators within the Roman society. They were trained at the highest levels of literacy and, as members of the upper social order, they were directly involved in the social and political culture of their times. The Romans were aware of the power of a literary canon to teach and instruct, and more importantly for their purposes, to provide a sense of national identity. They looked to poetic literature to provide them with a sense of history and found it in the *Aeneid* of Virgil. The *Aeneid*, the first commissioned epic in literature, was written at the beginning of a seventy-year period that came to be known as the Golden Age. Virgil was enshrined by the Romans for giving the culture a sense of history. The Roman literary canon that formed the basis for education within the empire and the Christian Middle Ages was created during this time.

The Christian orientation toward discourse began with Ambrose and Augustine. Augustine incorporated the Hebrew scriptures and the Christian gospels with the writing and literature of the Roman culture. He established a theology that was separate from philosophy, and created a metalanguage to relate theology to speaking, writing and literature. The cultural artifacts of the Roman society that were included in the new canon of the theological community were stripped of the associated metaphorical understandings of the Pagan culture, and redefined with those of Christianity.
At the close of the Empire literacy was waning and the Christian church provided emotional and social stability. The literate in society embraced the new social order and sanctioned it by sending their children to the monastic schools and promoting Christians to high levels of government offices. By the time that Gregory the Great, pope between 590 to 604, sent Augustine to England, the focus of ideological power had shifted. It had changed from a structure of state and philosophy, to one of state and Christianity, with philosophy under the interpretation of a Christian doctrine.

Isidore of Seville collected and compiled all of the existing literature and grammatical texts that were available. His monastery was connected to many of the monastic centers of learning and there was an active interchange between them. Isidore’s encyclopedia the *Etymologiae sive origine* was the most widely used grammatical encyclopedia of the Middle Ages.

The universals that begin to emerge from this are that (1) language is a social system that affects the culture. (2) The use of language in speech and writing is based on syntactical construction. This construction is based on the assignment of meaning to words and is subject to interpretation. The method of expressing a thought orients the mind in its method of thinking and in its expression of an idea. The method of expression is tied into a cultural system. (3) The social implication of language and literature arises because they are the means through which knowledge is passed. In Western society writing evolved and was used at the highest levels of the culture to record philosophical, scientific and political ideals. What has been seen in the history
of the Greek and the Roman societies is that literacy spreads downward and includes the entire population in a stable society. The more complex the society is, the greater its reliance on a common language. (4) Political and philosophical systems are transitory; the power of the word is not. Literate societies build canons that mark the progress of their culture in literature. The best of the literature, that which touches a central truth of humanity, is carried forward in history.

The transitional period of the Roman Empire prepared the way for the grammatical formation of the Middle Ages. The system that was devised by the late Roman grammarians, who were aware of the change that was coming, codified the language and organized its teaching through the literary canon, thus insuring the continuation of a body of literature that was copied for pedagogical purposes if not for interpretation. The rising Christian culture understood the power of the word and incorporated systems of their Roman culture with the theology of Christianity. Christianity in its evangelical endeavors preserved the literature and teaching artifacts of the Romans, using them to educate students in the monastic schools that arose at the end of the Roman Empire.

3.3 Part II: The development of a Textual Culture

3.3.1 A.D. 600-800

The two-hundred year-period from six-hundred to eight-hundred and the Carolingian Renaissance was a time of reordering the study of language and literature throughout Europe and the beginning of the modern world. Without Roman civilization and its
culture, the disparate societies on the British Isles and Ireland and Europe began to connect with one another on the basis of their common learning which came to them through the system of Christian theology. The influence of the foundations laid here provided the basis for the Carolingian Renaissance and later the formation of the university centers at Oxford and Paris in the twelfth century.

Within one hundred years of the establishment of the Bishopric of Canterbury in England by Augustine, a period began (639 to about 782) in which Anglo-Saxon scholarship in grammatica excelled. In 669 Theodore and Hadrian established a school of grammatica at Canterbury. When they arrived they found that there were students there for them to teach who had gone beyond the elementary grammar and were literate in the literature of Latin. Aldhem (640-709), who is credited with creating the Insular Grammar, was among those whom Hadrian taught. In the years that followed, the Benedictine abbeys of Wearmouth and Jarrow, established in 674, became one of the chief centers of book production and the leading center of grammatica in England and arguably, the world (Irvine 273).

The primary concern of the English educators was literacy in Latin since those converting to Christianity north of the Alps from the fourth century on were expected to adopt Latin as the language of the Church and hence of scholarship and education (Law 53). The work of the grammars and works written for native Latin speakers, Donatus, Priscian, Augustine, Cassiodorus, and Isidore of Seville, were adapted to suit a non-native speaking population and a system of instruction was devised for teaching
Latin as a second language at a two levels of education. The Insular\textsuperscript{2}, elementary grammars were developed by the monks in the late seventh-century as basic level texts that taught the systematic structure and parts of speech. These grammars were the first truly form oriented descriptive grammars in the West (Law 53) and became the basis through which Latin was transmitted to a non-native speaking population throughout Celtic and Germanic Europe. They bear a marked resemblance to the traditional teaching grammars of today (Law 75). The second level was designed to demonstrate an analysis of texts and consisted of close readings of the commentaries of the canonical texts.

The study of Anglo-Saxon grammar can be traced back to the writings of Aldhem, Tatwine and Boniface (675-754). These writers assembled their grammars from three distinct stages of Latin: the usage of 'ecclesiastical dogmatists', the monks everyday readings, and the usage of writers in the first-century B.C. and the 'customs of the ancients' writers of the third to second centuries B.C. (Law 177). A sure grasp of events in English grammatica is critical to the understanding of the survival of late Latin texts into the Carolingian epoch. The Anglo-Saxons along with the Irish, were instrumental in transmitting grammars, their own as well as those of late antiquity, to the Germanic peoples of the Continent. They in turn furthered the study of grammar by making the copies in which so many of these texts are preserved (Law 92-112).

\textsuperscript{2} Insular is a term used to denote grammar that were created within an monastic center of learning in the British Isles from A.D. 700 or earlier.
The writings of Bede (673-735) in eighth-century England provide an insight into the cultural power of grammatica, the study of language and literature. In his *Historia* Bede indicates that writing, interpreting, and reading are discursive events under authority. There is a two-tier hierarchy of authority; the authority of the king who rules from divine right and is therefore the first link in the chain of textual command and that of the bishop. Ecclesiastical authority is rooted in the patristic writing of the Church. The preface to Bede's *Historia* also emphasizes the authority of writing and written sources. His history is based on the assembly of written texts. Current information is validated when it is converted into a written text. The only form of oral tradition given equal status is that reported to Bede from his sources viva voce which are sources authenticated by prominent Church authorities. The written text is thus a form of externalized memory marked by authority as the Church's main instrument of memory (Irvine 275-6). Bede's work confirms the inclusion of the late Roman literary canon in the teaching of literature. Works from Vergil, Ovid, Pliny, and Seneca are among those cited. The importance of the Insular grammars is also acknowledged by his work; it supplies remarkable evidence that a corpus of anonymous compilations and introductions to grammatica, preserved in four grammatical collections copied on the continent, was available in the center in which the author worked. On the basis of these works he outlines the scope and focus of a Latin education that includes the traditional seven arts. The justification for the inclusion of these pagan works is that they have their source in scripture. His explanations therefore show a layering and combining of elements from the Roman,
Christian and contemporary usage of allegory became the standard reference of the Middle Ages.

History has a grammar that is known through narratives that are preserved in texts. Bede considered grammatica to be a discipline concerned with the discovery of meaning and the understanding of texts, chief of which was the Scriptures, which had its own tropic structure capable of grammatical analysis. In doing this Bede turned Donatus’ *Ars maior* 3 into a practical guide for interpreting the language of the scriptures (Irvine 272-296).

At the same time that the foundation for a Latin literacy was being formulated in England, there was a continuing tradition of poetry and common literature that was separate, and apart from the official doctrinal literature; this literature was written in Old English. In addition to English at the time that St. Boniface traveled to Frisia in 718 the other existing vernacular languages were: Old English, Old Welsh, Old Irish, Old High German, and other mostly non literate dialects (Law 129). The Latin that Boniface was familiar with and brought to the continent was based on the Insular Grammar developed in England. The biblical scriptures that he was versed in were from the Vulgate Latin of the fourth century A.D. In fact, all of the Latin that was taught throughout England, Ireland, the Benelux, France and Germany was the Vulgate Latin. In the official culture of the day that has been documented there was no literature apart from that of the Church. Aside from the official doctrine however, there was the beginning at this time in England, of a written non-religious vernacular language that spoke of the society of the day apart from scriptural doctrine. The
English vernacular that developed as a result of this unique set of circumstances drew from the Latin framework for the assignment of meaning in a grammatical format. This English was a language that was living and responsive to the cultural needs of the day. Aside from the official doctrine of the Church, which held that Latin was the language for preaching, the actual language that reached the people was the translated gospel in the vernacular preached by a semi-literate clergy and poetry written in old English.

The population throughout England, Ireland and Western Europe was based on orality with the higher class being educated in the vernacular language and Latin. The literate clergy were divided into two classes those with a basic literacy who had an ability to read and write, and those trained a higher level who had read the classical canon and could interpret texts and scriptures. The function of an education at a higher level of learning was to be able to promote the litany of the Church. Original work and interpretation was not sanctioned. The end product of interpretation was to preach to either the clergy, or the common people, and spread the doctrine of the Church.

Latin learned though the Insular grammars as a second language had no system for pronunciation. As a result, Latin pronunciation was dialectic and reflected the speech of a local area. To enable the non native speaker to read the texts more clearly accidence tables (punctuation guides) were developed for the proper reading of a manuscripts (Law 58).
The English were the first to begin to integrate Latin into their native language. A decline in Latin scholarship that started in the ninth century, led to the rise in vernacular literacy in the English schools where classes were conducted in the native language (Law 200). At the time of the invasion, Latin scholarship was waning and a combination of a vernacular-Latin was taking its place. The work of AElfric (died 1010), which was the creation of an English metalanguage for the teaching of Latin grammar written for the common nun and monk, was forgotten with the imposition of the French Latin. It was not until the fifteenth century that a new metalanguage was formed for English (Law 216).

3.3.2 Carolingian Renaissance

The Carolingian Renaissance covers a one hundred twenty six year period beginning with Charles Martel in (717) and ending with the death of Louis V in (987). The most significant rulers during this period were the reigns of Pippin the Short, Charlemagne, Louis the Pious and Charles the Bald, the period 751 to 877. The Church reforms that were initiated during this period consolidated the grammatical culture around the court, the monasteries and the cathedral. The alignment of the king to the Church and therefore to the literary culture was a fundamental tenet of the culture. The culture that developed during this period depicts Stock’s description of a textual community as an interpretive and social entity arising between the imposition of the written word and the articulation of a certain type of social organization (Stock, Listening for the Text 150).
The Carolingian ruling structure was based on the law and the written word. Every monastery and cathedral was equipped with a school. Under Charlemagne an official set of textually correct readings for the litany of the Church and the Bible were ordered in the *De litteres colendis* (790). In this mandate the four following principles were decreed: all uses of the written word must display or preserve the king’s dignity; only grammatically correct Latin writings are worthy of being produced in the king’s realm; truth must be expressed in language free of verbal errors since thought and expression are correlatives; the scriptures are written in the tropic language treated in grammatica, the discipline concerned with meaning, correct Latin, expression and exegesis is grammatica, the *litterarum magisterium* (Irvine 308).

The writings and representative art of the Carolingian era reveal that the textual and linguistic power which came only from grammatica was seen to be continuous or co-extensive with *lex* and *imperium* (Irvine 306). The codification of literature and language, by Alcuin, was the foundation for subsequent textual culture until the twelfth century.

Alcuin was educated in York, England and came to the court of Charlemagne by invitation. At both Tours and Aachen he organized the grammatical curriculum of both the beginning and advanced levels as part of a group of individuals who formed the palace school of Charlemagne (Irvine 317). Alcuin is associated with the rediscovery of the works of Priscian through his detailed study of the texts, the best known of which were the *Institutiones de nomine* and the *Institutiones grammatica* and *Partitiones* (Irvine 327). His intense study of the *Institutiones* in particular
resulted in his recompiling a system of grammatica developed along two areas of
study that had been neglected for several hundred years: the relationship between the
laws of language and the laws of thought, grammar and dialectic and syntax. (Law
127). His basic work *De grammatica* discussed elemental grammar, dialectic and
rhetoric. The impact of his work on medieval culture up to the twelfth century lies in
his choice of emphasis. The basic grammar of Alcuin places dialectic, the art of
argument and the methodology of posing a question, prior to grammar in the hierarchy
of language. Because wisdom of the paths of the divine principles of things is
achieved through textual proficiency grammatica is the most essential of the seven
liberal arts. Alcuin’s grammatica included elements of both dialectic and rhetoric. As
a result of the study of literature, the ideal student is to become a proficient interpreter
and persuasive teacher as outlined in the model of education instituted in Augustine’s
*De doctrina Christiana*.

The framework for Alcuin’s model is developed on the basis of the standard
late Classical sources as well as the writings of the early Christian sources:
Cassiodorus, Isidore of Seville, Augustine, and Boethius (Irvine 321). He was the
first medieval grammarian to bring a concept and an methodology for a systematic
method of definition for speech and writing in the arts grammaticae. In his
interpretation he places the emphasis on the origin of grammatica on writing rather
than speech and changes the elements of the parts of grammar from the word parts to
species. In doing this he merges the methodology of *dialectica* with that of
*grammatica*. This system lasted into the twelfth and thirteenth centuries after logic
had become the paradigm for the arts of discourse in the university. The work
*Disputatione rhetorica et de virtutibus* is an ethical and political treatise in the form
of a rhetorical handbook. In this book grammatica is presented as the discipline
through which eloquent style and textual competence are learned. Style is always
based on the written language of Latin and is based on authoritative texts. Authority
both grammatical and rhetorical is textual and the language to be promoted and values
employs the words that are currently used (Irvine 325-327). In doing this he set up the
problem of the two aspects of the categories-one that they are linguistic and two that
they are also mental/real world operations (Law 161).

Alcuin applied this organizational system to three key parts of textually: the
mechanics of writing and speaking, the revision of the liturgy, and the translation of a
Vulgate Bible and transformed grammatical methodology into practical public policy.
In order to make all of the texts legible Alcuin developed the style and instruction for
the Carolingian minuscule script. All proper writing was legislated to be formulated
in this script. In conjunction with the regulation of a script, Latin pronunciation
(speech) was also regulated. For the first time normative rules for pronunciation were
introduced and followed universally. This allowed for a commonly understood
method for communication that was not affected by the local dialect of a town. This
proper Latin had primacy over the dialectic Latin and over the vernacular language as
well. Although there was a slow process of coding the vernacular in both Old German
and the Frankish tongue, the Latin of Alcuin and the court was the language of record
for all laws and history within the realm.
The organization of the liturgy of the Church and the translation of the Bible were both accomplished with the revised grammar and new script of Alcuin. His Bible, which was a translation of the Northumbrian version of Cassiodorus' text that had been brought to Wearmouth-Jarrow, became the Vulgate edition of the Bible (Irvine 331). The underlying premise of Alcuin's work, which was sanctioned by the king, was that authority lay in the Christian texts and not in the oral tradition or the pagan texts. Writing is the guardian of history. The dissemination of the work of this period to the monasteries throughout the Frankish and German kingdoms became the basis for European Latin. When it was reintroduced in England by the French monasteries after the Norman conquest it became the intellectual language of England as well. At the time of the invasion Latin scholarship, as noted earlier, was waning and a combination of a vernacular-Latin was taking its place. The work of AElfric (died 1010), which was the creation of an English metalanguage for the teaching of Latin grammar written for the common nun and monk, was forgotten with the imposition of the French Latin. It was not until the fifteenth century that a new metalanguage was formed for English (Law 216).

After the Norman Conquest (1066), England was tied to France both politically and intellectually a tie which was strengthened by the theological framework that controlled the grammatica—the vehicle of communicative intellectual thought. The monasteries of France made manuscripts available to those in England and inspired a revival of Latin scholarship. The formation of the University of Paris by Peter
Abelard (1019-1142) and Oxford University in England in the early twelfth century was due the rising scholarship throughout Europe.

3.3.3 1100-1400

The twelfth to fifteenth-centuries saw the transition from a wholly theological culture to one in which theology began to consciously co-exist along with the empirical sciences, philosophy and the arts. A textual culture was established that could reflect back on itself. The commentaries based on this reflection were the result of the existence of the basic elements of cultural literacy: European Christian writings on the law, theology, and the beginning of indigenous literature.

The prelude to this begins with the introduction of Scholasticism in the eleventh century which began to change the nature of the purpose of education. The forming of the universities at Paris and Oxford in the early twelfth century continued the development of ideas that challenged, in many ways, the existing intellectual structure of the time. It was an atmosphere in which literate individuals were encouraged to explore intellectual thoughts within the limits of the ruling doctrinal bodies of the Church. These thoughts were expressed over a three hundred year period in (among others) the work of Anselm (1033-1109) the founder of scholasticism, Abelard a scholastic and considered the founder of the university of Paris (1100-1142) and contemporary of Peter of Lombard, Thomas Aquinas (1225-74) the preeminent scholastic, Dun Scotus (1266-1308) and later William of Ockham (1285-1349) both of whom were of the nominalist schools.
3.3.4 Cathedral Schools of the Late Eleventh Century

In the eleventh century there was a combining of the *artes liberalles* and theology that was seen in the cathedral schools and in certain monastic schools that began to teach higher education. The dialectic, which had been reintroduced by Alcuin, began to be used in conjunction with theology and the problem of reason and revelation (or authority) became an important issue (Grane 15-16). Traditionally the function of education within the Christian church had been seen as the training of individuals in the skills of the seven arts according to the principles of Augustine.

Since the fundamental principle of Augustine with regard to literature was to replace pagan philosophy with a Christian synthesis, and to train clergy in the skills of grammar and interpretation of Christian scripture, curriculums had set aside the parts of philosophy in which the function of completing the synthesis of learning and making it a theoretical doctrine (first philosophy or metaphysics), and a practical doctrine (ethics) reside. These elements were left aside to the benefit of the science of the Scriptures, which were considered to be an abundant source of all the speculative and moral truths that should guide the Christian's intellect. ... Only those elements of philosophy which have a preparatory character judged indispensable for the fruitful study of the Sacred books were retained (Van Steenberghen 27).

The monastics, who were the traditionalists, operated within a system whose purpose was the monastic life where nature and history can at most be used to serve a higher cause. Monastic orders at the time were composed of a congregation of choir monks who lived according to the canons of Benedict, Basil, Anselm of Laon,
William of Champeaux and Hugh St. Victoir. (Anselm of Canterbury had been trained at the schools of Anselm and later William.) They studied texts—both single manuscripts and compilations of manuscripts in Latin and had access to some in Greek as well. 3 Dialectic, which attempted to explain dogma, was of no interest to them. The Bible and the works of Augustine and Origin were more useful to them than the speculative logic of Aristotle (Grane 28-31).

In contrast to the monastic theological tradition scholasticism founded by Anselm, Archbishop of Canterbury (1033-1109) was characterized by speculative abstraction and was analytical. Anselm wished to reach, on the basis of Church authority, a thoroughly rational understanding of the mysteries of faith. The two theological approaches differed not about the practical cultural life of the time, vernacular poetry music et. al., but on the issues of the introduction of changes to the traditional dogmas of the Church. By 1100 the cathedral schools in which the scholastic approach was taught began to replace the monastic schools as the dominant educational institutions (Grane 24-25).

3.3.5 1100

The discovery in the twelfth century of Greek literature, particularly that of Aristotle produces a great movement in translation that welled in the middle of the century and lasted until the end of the thirteenth century. During this period all of the works of Aristotle, Plato, their commentators and the Arab philosophers Avicenna and Averroes

---

3 See Irvine's list of manuscripts pg.336.
were translated. Intellectual life, based on the newly discovered late Classical works of Aristotle in their original versions, produced a re-awakening of rational thought about human existence and initiated the reintroduction of speculative logic and metaphysics, primarily those of Aristotle, in the disciplines of study.

Because of this grammar was re-evaluated according to two main functions; that of a tool for reading Latin, and that of speculative grammar and came to be again under the domain of logic and metaphysics which could be considered the beginning of what we now call linguistics. This process began slowly during the twelfth century with the work of Peter Helias and other grammarians and the introduction of the Alexandrian grammar late in the century, and was avidly pursued as speculative grammar in the thirteenth century and by the modistae in the fourteenth century (Robins 80-90; Gellrich 101). The influence of Peter Abelard on speculative grammar can only be made by inference. Peter Helias and John of Salisbury, his student, who were both in Paris during this period could not have been unaffected by his influence and it is likely that they attended his lectures. His influence can be seen in the opening of grammar to analysis of the construction of meaning in written words that accurately reflects the truth of an idea. John in his *Metalogicon* discusses the issue of the origin of words as natural or human. It is not clear in his references to Priscian whether Priscian’s idea was that man produced letters by means of a vocabulary of elements according to a similitude with elements of the world meant that words as sound strive to have the vibration of the thing or whether they are arbitrary and stand to represent a thing. The discussion over the verb to be begins over how things are to
be signified. Peter Hellas takes the position that esse signifies a substance in the manner of an action. Because the complete texts of Aristotle had not yet been synthesized, it is possible that that is why they did not reference for intention the original text of Aristotle but preferred to use the scriptural interpretations of words as the 'unmediated language of God' (Gellrich Idea 103). This situation begins to change in the thirteenth century when the idea of to be expands, and discourse begins to talk about the way man understands himself in the world.

At this time, 1100, specialized intellectual centers had already developed elsewhere in France and England and the continent, and Peter Abelard came to Paris because of the dominance of the dialectic discussions in that intellectual community. Abelard was born in Le Pallet in Brittany. By the time he arrived in Paris, in 1100, he was already well trained in the art of dialectic having sought out masters of dialectics as a wandering scholar from about the age of fifteen. His goal as a professional scholar was the formation of his own school; which he did at Melum, Corbeil and afterwards at Paris. He could perhaps be considered to be the product of the transition from the monastic school tradition to that of the cathedral school of Scholasticism in that although he later became a monk, his original goal was not a monastic life but a secular intellectual life tied to theology. In the monastic tradition prior to the cathedral schools, entry into the clergy was a part of the educational process. When Abelard was appointed to his post as magister scholarum at Notre Dame he was not required to be ordained. Studying in any science meant automatic inclusion in the
clerical system but not the taking of vows. In this attitude he differed greatly from the religious orientation of Anselm of Canterbury (Grane 26-35).

Using the tool of dialectic Abelard analyzed the available works of Aristotle at the time: the *Categories*, *On Interpretation*, Porphyry’s *Commentaries on Categories*, Boethius’ commentary on Aristotle and his treatises on logic. Using logic he anticipated a theory of perception very similar to the viewpoint that came to be held a century later in William of Ockham in the manner in which he was able to separate logic and metaphysics. His logic therefore was not concerned with matters beyond consciousness, but with words and sentences as perceptions of the reality that surrounds us. As an Aristotelian he stressed that all human understanding is based upon experience.

Abelard regards perception as the first link of understanding in dialectic logic. Perception allow for the formation of a concept though the process of abstraction. In this process the sensory images of things are torn away from their special circumstances revealing the components pieces of the whole. The intellect is able to select (abstract) those parts within individual things in that resemble one another. These pieces are universals and are neither things (res) nor nothings. The logic of Dialectic is based on abstract concepts.

Dialectic must be true itself in the sense that it corresponds to an extra-mental reality. Assuming re-association between the concept and the exterior reality, a conviction of the equally necessary real character of the logical conclusion becomes clear (comprehensible). The sense of words in a sentence rests not only upon
conformity with an external reality, but also with their relationship. Abelard's is a critical analysis of the content of consciousness on the basis of linguistic expression (Grane 83-84). Only because there is writing could he have made this assessment on the nature of perception that is based on the ability to abstract a thing, and represent it in words. Our use of universals supposes first that there is a real likeness among the individuals to which they are applicable, for although universals are not things, they denote things, and, second that these common conceptions exist in consciousness (Gilby pg.6).

In his definition of the function of dialectic he returns the use of grammar to its original function as a safeguard against a formalism that can lead to decisions made on a false basis. Dialectic is more than a function, it is an opportunity to understand. It reveals things rather than conveys them. Abelard's was a hermeneutic approach and not the Theoria of his predecessor Anselm. Anselm's dialectic as a method of revelation operates within the realm of the existing theology as presented by Augustine and the fathers of the Church. It is an approach where philosophy, as a secondary operation, serves and supports the primary role of the theology of the Church.

The biography of Abelard reveals that there was a fundamental misunderstanding of the service role that philosophy played in Abelard's writings. He was accused of going outside the cultural Christian framework of the time through the employment of dialectic to explain what was revealed, and identified through dialectic as a theological system of Christianity (Grane 161). This concept of Christianity as a
philosophical system was developed in the following century by Aquinas. Abelard's lectures are known to have been attended by both Peter of Lombard who in his *Sentences* relies heavily on his books but fails to cite them directly, and John of Salisbury who was a friend of Thomas of Beckett and associated later, after Thomas's death, with the papacy. Abelard, perhaps because of the censure by the Church of his writings, left no school behind but his active use of logic and dialectic ideas were carried into the next century in the development of the university of Paris as a center of logic and philosophy.

**3.3.6 1200**

During the thirteenth century questions remained about how to place the new knowledge. These two main questions: how to synthesize the purely rational doctrine as the Greeks had conceived it without disturbing the unity of Christian learning and compromising the primacy of revealed truth; and how to communicate and apply new ideas. The intensity of intellectual thought involved all of the schools on Europe as each one continued to develop a special interest. Oxford and the University of Paris emerged as the leading centers for theology, science and language. It was primarily within these two centers that Robert Grosseteste, Roger Bacon, Thomas Aquinas and the Speculative Grammarians worked and wrote during their careers.

By the beginning years of the thirteenth century, the philosophy of Aristotle had penetrated into the practice of the schools and the teaching of the seven arts at the arts faculty in Paris. Late in the twelfth century the arts faculty had begun to teach the
first three books of the *Nichomachean Ethics* and all of the *libri naturalis* of Aristotle. The prohibition of the council of Paris in 1210 is evidence that there was widespread reaction to the influence of the pagan material. The *libri naturalis* were excluded from the syllabus, but ethics were allowed to be taught. In 1240 the ban was rescinded. No such exclusion occurred in Oxford where Roger Bacon, who became a Regent master at the arts faculty in Paris about 1240-1245, was familiar with the *Physics, Metaphysics, De Plants and De causis* and was one of the first to lecture on Aristotle after the ban was lifted. By 1255 the arts faculty proclaimed a new syllabus which imposed a study of all the known works of Aristotle. On that day, 19 March 1255, the arts faculty divided from the theology faculty and began to pursue increasingly independent avenues from theology. (The arts faculty was the more junior faculty. After teaching on the arts faculty it was expected that one would go on and study theology and join the theology faculty.)

The University of Paris was the center for Aristotelian studies and logic at the end of the twelfth century. In the separation of the artes faculty from the higher order of the theological faculty it was the first philosophical movement of the Middle Ages that worked with systems of philosophy apart from theology. The Artistotelianism of the movement was largely Neoplatonic. The three phases of Artistotelianism before 1300 were: 1200-1210- beginning teaching of *libri naturales* and the works of Avicenna; 1210-1240 - philosophy was confined to logic and ethics; 1240-1250 prohibition against teaching was dropped and the new syllabus was created.
Thomas Aquinas arrived at the University of Paris in 1252 after completing his studies with Albert the Great in Cologne. In Paris, after completing his theological studies, he assumed one of the two Dominican chairs at the university, and with extraordinary insight realized that the Christian theology did not have a philosophical system comparable to that of Aristotle or Plato. Beginning in 1255 to 1270 he spent fifteen years developing a new philosophy known as Thomism which interpreted all of Christian theology based on the Aristotelian/Neoplatonic systems. Thomas used the original texts of Aristotle to base his theory on a purer Aristotelianism than had been included in theological discussions up to that point.

At the completion of his work a struggle took place, from 1267 to 1277, that involved the far left radical Aristotelians arts faculty, headed by Siger of Brabant, and the far right theological faculty headed by Bonaventure of the Franciscan faculty. The argument was over the emergence of a new paganism that they saw rising as the result of the naturalistic and rationalistic attitude of many Paris masters. Thomas, who fell in the middle, was grouped on the side of the far left and included in the condemnation which was issued in 1277. After the condemnation, the arts faculty reverted to the traditional Neoplatonic Aristotelianism of Augustine, and a neo-Augustinian school was formed that lasted 30 years. By the first years of the fourteenth century they had been absorbed by Scotism.

The last quarter of the thirteenth century was despite the decree of 1277, the great age of Scholasticism based on the legacy of those who had held the chairs until 1277. The scholastic movement not only had a profound effect on scientific thought,
but it also profoundly affected the formation of European languages, particularly French, as vernacular languages began to be coded for writing, and the indigenous literature of myths and legends began to be recorded in writing. Philosophy came to be a more and more autonomous science characterized by its object—the total data of human experience (Van Steenberghen 38-112).

During the thirteenth century the grammarians attempted to establish grammar as a self-consistent system through the study of language. The realignment of the curriculum changed the position of grammatica within the textual culture. The rigid discipline required to ensure cultural survival could now be adjusted and expanded. This was critical because of the functions of the logicizing of theology and the introduction of scientific ideas needed a way to express new concepts that were entering the culture. In a network of countries where Latin was the favored language of the academy, philosophical emphasis on the *how* of signification as opposed to the *what* of signification produced the texts on speculative grammar of the thirteenth century, and the modistae of the fourteenth (Gellrich 105). Roger Bacon (1214-94) said that, “grammar is one and the same according to substance in all languages.” He goes on to state that it is “Not the grammarian, but the philosopher, diligently considering the proper nature of things who sets down grammatical principles.” Summing up the position in the thirteenth century: grammatica is the self-sufficiency of Latin as a metalanguage for organizing the discipline itself rather than for describing specific linguistic instances (Gellrich 106). Derrida asks: “How does the place of origin of a language immediately mark the difference proper to a language?”
By excusing itself from dialectic/regional distinctions in the use of the words the speculative grammarians anticipated Derrida's observation on Rousseau that

"one must furnish a natural, non-metaphysical, non-theological explanation of the origin of languages... There is no social institution before language, it is not one cultural element among others, it is the element of institutions in general, it includes and constructs the entire social structure. Since nothing precedes it in society, its cause can only be precultural or natural. Although its essence is in the passions, its cause, which is not its essence, arises out of nature, that is to say from need" (Derrida 219).

The need for a matter of constructing truth in a written language was the focus of the work of Siger de Courtrai and Thomas of Effert in the next century.

3.3.7 Conclusions

The transference of the recorded literary arts system to the monastic Christian orders at the end of the Roman Empire provided a foundation for the development of Western European literary culture. The literary culture was distinguished by the predominance of Latin grammar and literary canon as the basis for formal communication amongst the theological Christian community, and as Christianity spread, the political and secular communities as well. Prior to the Carolingian Renaissance the monastic communities in England and Ireland had prepared educational grammars for teaching at a basic level to students within their educational system. The Christian education system was based on the allegorical interpretive system of Augustine for the Bible, the encyclopedic books of nature that contained information on the world, and mythology.
The literate community of the clergy, which continued to grow as the Christian Church grew, spread the idea of literacy to the secular population through preaching and scribal practices. The clergy established a network of centers of education that used one language and its canon of literature. The use of one language enabled scholars to travel between countries, that spoke a variety of languages, teaching and sharing information. The high intellectual culture was bound to the theological community and its members. Once a methodology for instruction on grammar and interpretation was in place, the culture of letters, as it had in Antiquity, aligned itself with the political order. This is seen in the Carolingian Renaissance where, under Alcuin, a systematized structure of the grammatical arts was concurrent with the codification of laws. An intellectual structure was established for the interfacing of the Latin/Christian with the vernacular/political structures.

The stability that this fostered allowed for two significant developments in the use of language: the transcription of the oral vernacular languages into writing, and the contemplation language as used in the discussion of scientific ideas. The codification of the vernacular in Italy, England, France and Germany resulted in the creation of a new literary form: fiction. This is seen in the work of Dante and Chaucer, two works that will be discussed in the next chapter. The need to develop a language methodology to talk about non-theological ideas outside of the realm of Christian doctrine led to the focus on the semantic elements of dialectic.

Abelard's use of dialectic prompted the questioning of a Christian interpretation and the coexistence between theology, philosophy, and science. His use
of dialectic (logic) was non theological. Dialectic logic used language in a non
allegorical, non metaphoric way that co-existed with the use of theological discourse.
Reasoning began, with Abelard, to proceed along a non syllogistic path. He adopted a
approach hermeneutic approach in his assignment of meanings in terms and
universals. Although censured for his non-theological approach, by the middle of the
thirteenth century, theology and philosophy were separated into two distinct studies at
the University of Paris. The inclusion of dialectic by the academy, who were
members of the clergy, signaled the beginning of the displacement of Christian
orthodoxy. This opened the way for nominalism and empirical science and the
fictional book in the fourteenth century by allowing for discourse outside of the
orthodox constraints of the Church.
CHAPTER FOUR
THE EARLY RENAISSANCE

4.1 Introduction

In Chapter Three we have seen the development of a textual culture throughout the Medieval Period in Western Europe. The Romans adopted the textual culture developed by the late Classical Greek society, translating the grammatical structure and literary canon that was begun by the Stoics into Latin. In addition they commissioned the writing of their own cultural epics, most notably the Aeneid of Vergil, and added them to the standard educational canon. At the demise of the empire, Augustine added a Christian metalanguage to Latin, and the Christian theology adopted the literary and grammatical structure of the Roman Latin tradition and carried it forward into the Middle Ages. By the late Middle Ages, the establishment of Christian orthodoxy in England and on the continent, fostered the rise of an intellectual community that was linked by Latin as a common language, and in which textual connotations were universally understood in writing, rather than speech that was subject to dialectic pronunciation. Gradually, the Christian community aligned itself with political governments that were increasingly stable; and by the Carolingian Renaissance, the movement for education of a more general population, and the codification of common vernacular languages resulted in the establishment of the monastery schools and the founding of the universities.
diversification of the uses of writing. By the end of the thirteenth century the desire to go beyond theology, government and business, the three accepted purposes of writing, led to the secular vernacular fiction seen in the works of Dante and Chaucer, the use of language for scientific purposes that was established by William of Ockham in the fourteenth century, the invention of the printing press and rise of the printing in the fifteenth century. Chapter Four will discuss these five elements that, together, signaled the shift from a two dimensional concept of space, time and meaning, the perspective of the ancient world, to the three dimensional understanding that transformed western European culture. The significance of William of Ockham, the rise in vernacular literature, the invention of the printing press and the rise in printing will be the subjects of this chapter.

4.2 William of Ockham

The nominalist ideas of William of Ockham (1285-1349) establish him as the father of the empirical philosophy that was developed by Francis Bacon, Locke and Hume, and the rise of empirical science. Born in Ockham England, Ockham became a member of the Franciscan order and was educated at Oxford. His philosophical position was based in the scholastic tradition, and it was from within that tradition that he formed his commentaries on the complete range of philosophical topics that were common to the discussions of his society. Ockham was particularly concerned with the interpretation of Aristotle and the issue of universals. In his analysis of Aristotle he was critical of the variety of interpretations that had been formulated by both other
schools of thought (the Neoplatonists, the Averroes and Avicenna, Augustine), and members of the Scholastic tradition considering them to be inconsistent with the original writings of Aristotle.

The significance of Ockham lies in his analysis of the Aristotelian works in their original form. Ockham’s ideas, coming after the *Summa Theologiae* of Aquinas, signals a break with the scholastic tradition and the advent of modern philosophy. From within the traditional position of his time Ockham’s commentaries sought to separate the threads of Aristotelian philosophy on physics, metaphysics and the categories that had been woven together by Porphyry in his commentary on *De Interpretatione*. By disentangling these threads and placing them again in distinct discrete units, he focused on the rational, scientific, metaphysical, or ontological aspects of Aristotelian theory. The fundamental idea of Ockham, that precipitated the scientific empiricism of the fifteenth century onwards, was that universals exist only in the mind. Universals are understood in the mind of a human being as a concept(s) which are natural signs (Moody 80-81, 127). Being acts of understanding, which are incorporeal, universals are incorporeal; and being acts of an understanding which is not a sensible or material thing, universals cannot be said to be *in* sensible things, nor of the being of sensible things (Moody 94). Insofar as knowledge is concerned, there is only one kind of thing that can be called universal(s), these are the concepts formed by the human mind by acts of understanding; acts which are natural or immediate signs of individual things for which they stand in discourse. The concept of the individual having the right to hold an independent opinion, guided by Christian ethics,
is inherent in the empirical approach of intuition in Ockham. Universal concepts declare, express, explain convey and signify the substances of things (Gellrich 47). All universals or general concepts are simply names, and they only denote individual objects. The words used to represent the concept, genus, species, or universal are not the actual concept itself; they stand to either describe it, or represent it (Moody 87). Ockham’s challenge to the established school of scholasticism is that language and words cannot be use to denote the existence of God. Belief in God is an act of faith. Words are only words; they stand for either physically material things—a car, a plane a cat, or for ideas—but they themselves are not physically what they stand for or represent. What makes names (words) universals, and what sorts them into categories, is not what they are, but how they signify.

Words therefore can be used to explore and analyze things outside of the realm of theology since words are not part of the actual (albeit) allegorical body of God. Words, therefore, can be used in the following ways: we can use words to describe things very precisely; and using the reflective quality that is inherent in the written word, we can reflect on our thoughts and, using reason, scientifically analyze the observable phenomenon of the world. The edge of Ockham’s razor is not simply his law of parsimony¹, but the idea that the existence of God cannot be proved by rhetoric (words) and requires an act of faith, while diminishing the orthodoxy of the church on one side, leads to the possibility of using language as a tool of science to record and discuss analytic ideas or concepts on the other. Because reason and the language used
to convey reason cannot be used to prove the existence of God, the way was cleared to use language as a tool of scientific analysis and literature.

4.3 The Rise of the Vernacular

Print culture was established in Europe through the system of hand printing plain and illuminated manuscripts. From Bede onward vernacular literature and linguistic theory evolved together in medieval culture (Vance XII). The development of the literacy that led to the rise in vernacular literature was a gradual process that started from about the millennium. Stock says that from that point on the written word, if only affecting a minority, had once again begun to be widely adopted as a basis for discussions of cultural activity and even as a standard of cultural progress. It was at this moment that people, who had been termed preliterate, were renamed illiterate (Stock, Implications of Literacy 8). There is no clear moment when the transition was made because, as Stock points out, literacy involved the entire fabric of society and progressed at various rates. One of the reasons for the sporadic progress of the codification of vernacular languages in Germany, France, Italy and England was that Latin, the language of the intellectual community, had a negative effect on the codification of these (vernacular) languages. Wherever Latin improved, the spoken and grammatically written languages grew farther apart (Stock, Listening for the Text 25). Never-the-less between the eleventh and thirteenth centuries the vernacular

---

1 Ockham's razor the law of parsimony. The object of scientific analysis is to use the least number of steps to arrive at the conclusion, or truth, of a question or proposition.
languages in Europe made their first substantial form (Stock, *Listening for the Text* 26).

At first, the grammatical construction of the newly written languages did not allow for a genre that could express a full range of emotions. This was not a concern however, because there was not a population that could read privately. The literate and general population were used to listening, and only the highly educated clergy, who were trained in higher level reading, due in large part to their knowledge of Latin, could actually read. The increasingly stable conditions in Europe, however, fostered the growth of education in the eleventh century which saw the rise of the universities.² The ability to read created a demand for books and established an active trade among professional lay illuminators. Vernacular literature began to operate within this growing textual culture although it was overshadowed with the use of writing and reading for legal and administrative purposes. The *Nibelungenlied*, for example, was recorded in Austria as an oral performance around 1200 (Stock, *Implications of Literacy* 80). In France there was a tradition of French Courtly Writers during the twelfth century. With these writers a balance began to be made between orality and literacy that can be seen in the *Chanson du Roland*. "Romance was the result, then, of technological invention that produced widespread literacy and the concomitant renewed interest in Aristotle and in the pagans overall. Romance contended with Scripture for the twelfth-century reading audience..."(Kimmelman 68-70). Medieval writers (with the exception of French courtly writers of the twelfth century) were
reluctant to proclaim their vernaculars as unequivocally legitimate language, at least as compared with the sacred languages of Hebrew, Greek and Latin. So long as the political ideology in the Middle Ages was dominated by Augustinian Neoplatonism, and specifically by the dichotomy between the city of human and the city of God, the claims of vernacular language on the intellect were no more worthy than those carnal (and poetic) desires that the vernacular was most want to express (Vance 317). During the thirteenth to the fourteenth centuries the vernacular was established as a structure for literature, in addition to law and commerce, and the author was considered as separate from the text (Kimmelman 85). Dante wrote the *Divine Comedy* and established Tuscan as the literary language of Italy and himself as author of the text at the end of the thirteenth century beginning a poetic tradition that was continued in the fourteenth century by Petrarch and Boccaccio. In England during the second half of the fourteenth century Chaucer, as the acknowledged author of the *Canterbury Tales*, developed English as a literary language and fiction as a secular genre for social debate as well as entertainment.

By the middle of the fourteenth century, the use of vernacular language became widespread as a result of the influence of the class, immediately below the nobility, who possessed both money and the skills of literacy that allowed them to be England's legislators (Coleman 14). The golden age of scholasticism that developed as a result of the harmony between the local and national secular culture and religious universal teachings gave way after Ockham, to focus on the concept of individual

---

2 There were more than twenty thousand students at the University of Paris alone (Meggs 60).
salvation amongst theological scholars. The expanding group of literate layman were also interested in this topic and "as educational opportunities opened to an increasingly numerous middle class, there was a meeting of personal interest with scholarly dispute" (Coleman 15). The work of Chaucer and his contemporaries arises from within this culture and they emphasized what the linguistic tradition of Augustine had tried to suppress, and in separating the use of word from theology they placed interpretation in the hands of the reader.

The genre of didactic fictional literature in England, that is exemplified by the work of Chaucer, combined theological, political and ethical interests and was written in a style that was a combination of courtly literature conventions of the French thirteenth and fourteenth-century poetry as well as English alliterative prose and poetry. From the middle of the fourteenth century to the beginning of the fifteenth, English begins to appear in noble circles although the official language of the court was an Anglo/Norman dialect. The perceptions of reality were increasingly being formed less on memory of events and more on the basis of the written word.

The proliferation of writing in vernacular was fueled by the rising wealthy middle class to whom the possession of a book was second only to the bed as the most important element of a household (Meggs 60). The subject matter of the vernacular literature in England consisted of translations of Latin works, popular literature including the work of Chaucer and Langland as well as translations of French vernacular romances and poems, religious prayers in books of hours and small
portable codices, political literature, and prose for law and business (Coleman 18, 41; Chartier 153).

Apart from fiction, vernacular literature became a tool for political commentary and business transactions that were a part of the emergence of a market economy that was rapidly replacing the feudal economy the pre literate culture (Coleman 47). This economy that appeared in England was paralleled elsewhere in Europe. As the hold of the religious groups gave way to the rising educated secular middle class, the demand for printed material for entertainment, religious and political writings grew. In the fifteenth century the printing press had a waiting public for vernacular literature.

4.4 The Rise of Printing

Print culture was established in Europe through the system of the hand printing of plain and illuminated manuscripts. Coleman notes that by the late fourteenth century the guild of scribes in England had to be regulated because there was so much work the shops were open even on Sunday (Coleman 26). The rise in the amount of Vernacular literature of both a secular and religious nature as well as a changing political climate in which the idea of the individual came to predominate created the market for the printed book.

The preparation within the society of Europe for the reception of the mechanically printed book began with Bede in the seventh century with the development of the vernacular and linguistic theory. It culminated in the invention of
the printing press that functioned with the alphabetic type of Western European
culture by Gutenberg whose achievement is still immeasurable. “Johann Gensfleisch
zum Gutenberg (1387-1468) of Mainz, Germany brought together the complex
systems and subsystems necessary to print a typographic book with moveable type
around the year 1450” (Meggs 64-65). Gutenberg labored for ten years before his first
printing and twenty years before his first typographic book called the forty-two line
Bible. During his research he financed his work through a series of loans which
allowed him the freedom to experiment with and resolve the problems with printing
that others had not been able to overcome such as the right alloy to blend for the metal
letters used for the type and the proper design for a press to imprint ink on the pages in
a regular fashion. Gutenberg at the end of his life was honored by the archbishop of
Mainz who raised him to the rank of nobleman in 1465 for his achievements. In 1462
the printing trade which was originally centered in Mainz dispersed after the invasion
and sacking of the city by Adolph of Nassau (Meggs 60-72). By fifteen-hundred
printing had spread to Italy, France, Spain, Portugal and England. The monastic
libraries which had had a combined collection of fifty thousand volumes in 1450 were
now in a world where nine million books had been printed by 1500 (Meggs 73). By
the end of the century the leading printing house was established in Nuremberg by
Anton Koberger (1440-1513) who was responsible for printing the Nuremberg
Chronicle in 1493 and Durer’s Apocalypse in 1498. It is speculated the Koberger,
who was the godfather to Albrecht Durer (1471-1528) introduced him to printing. His
Apocalypse was printed using relief blocks that were locked up with the type in the
printers forms combining (Ivins 85). The last age of the manuscript, 1350 to 1450 began to fade as the monks themselves began to use printing press technology which replaced the format as well as the impact of the hand written manuscript (Eisenstein 20). The new typographical mechanical letters held a rhythmic quality and regularity that the manuscripts never achieved. Because of these qualities and the fact that print materials could be produced for a reasonable cost and in quantity, the new print medium had a voice that no other media had. The voice of print could be mass produced and distributed. In addition, the permanency of the typographic letters that were officially stamped onto a page imprinted not only the page but the mind of the reader as well with the rational authority of the text. During the first period of printing, the Incunabula writings that were printed were the bible, religious works in the form of saint’s lives known as hagiographic texts, prayer cards, and devotional prayer books, Latin canonical works, vernacular literature in the form of occasionnel’s and tales and broadsheets(Chartier 13, Meggs 83).

In the early sixteenth century Cranach, a prominent printer in Wittenberg and a fiend of Martin Luther used the medium of a broadsheet to proclaim the beliefs of Martin Luther, and in England. Thomas Caxton printed ninety books that comprised almost all of English literature up to that point after 1487 when he moved there from

---

3 "The Latin word Incunabula means cradle or baby linen. It’s connotation of birth or beginning caused seventeenth century writers to adopt it as a name for books printed from Gutenberg’s invention of typography until the end of the century"(Meggs 73).

4 "An occasionnel was first a title made to be cried through the streets by vendors, but also made to catch the eye, the be seen and read at the booksellers shop. It piles up concrete details about a heroine, a location and elapsed time and eyewitnesses to give the impression of reality” to an event that is sensational and/or miraculous (Chartier 62).
Bruges. The printing press was even sent to the new world “for converting the natives in the colonies to Christianity in 1539” (Meggs 89).

4.5 The Significance of the Printing Press

The printing press technology that was available throughout Europe by the beginning of the High Renaissance affected every form of written communication. Gradually it replaced oral speech as the primary point of communication: speech referenced writing rather than writing referencing speech. Ong remarks that “Few if any novelists today write a novel by imagining themselves declaiming it aloud, though they might be exquisitely aware of the sound effects of the words” (Ong 95). That statement is the difference between the literacy of the Western European culture before the printing press, and the literacy that evolved after its saturation of the culture. Prior to the printing press, Meggs records, “the value of a book was equal to the value of a farm or a vineyard” (Meggs 60). Knowing how to read was not of great value if you could not afford to own a book. The affordability of the book as a result of the technology of printing, along with the presence of an educated class created though the monastic schools and the universities, fostered a rise in the literacy rate. The new literate population gradually began to depend only on the text of the book. Book reading became a silent exercise. The literate population began to function in new ways within their society. “For at least fifty years after the shift there is no striking evidence of cultural change; one must wait until a full century after Gutenberg before the outlines of new world pictures begin to emerge into view” (Eisenstein 33).
The emerging culture of print included all mechanically printed materials and comprised a new format of communication. As a new format, print communication was more immediate and direct than either the physical appearance, or availability of the manuscript form of writing. The format of the physical appearance of documents was changed to work in the new medium of print. These changes were in both the order in which the material in a piece was presented, as well as the layout of the type on a page. Tables of contents, cover pages, headers and titles became standard items and engravings and woodcuts began to be used for illustrations (Eisenstein 54). The reorganization of the format encouraged a new way of thinking about referencing in a methodical, repeatable and precise manner. The referencing of ideas in a repeatable manner established a methodology for discussing rational ideas about things that could be disseminated in a standardized way. An expansionist attitude that was created by the printed discussion fostered cross cultural exchange and an interchange of ideas and materials.

The idea of a publication and ownership became significant as texts could readily be identified by authors. Authorship also connoted authority. “For most kinds of writing, the printed copy had ore authority because of its visual simplicity, regularity, and reproducibility. As the author became more distant... the authors words became harder to dismiss (Bolter 149). The translations of the existing manuscripts into print and the problems of emendation that resulted reveal the problem of interpretation that Plato and Augustine had warned and written about. No sooner had the biblical and other manuscripts been cleared of their glosses and commentaries for printing than
new interpretations were being written (Eisenstein 701). An awareness of the insecurity of the fundamental basis of what could be called speculative interpretation in Biblical interpretation helped to establish confidence in the solidity and truth of mathematics and science.

4.6 Conclusion of the Early Renaissance

The impact of the printing press was partially a result of its arrival in a landscape set to receive it by the ideas of the Humanists and Empiricists who followed Ockham. The idea of Ockham, that words signify outside of a theological connotation, and the rise of print signaled an expansion of space that was seen in the shift from a two dimensional to a three dimensional conception of the world in graphical terms, and in scientific terms it opened up the attitude of an investigatory approach to the world in the conception of geographic space where information was able to circulate through the publishing of information and dissemination of information in a repeatable and economic fashion, and in terms of scientific information where the desire to go beyond the known thresholds became the focus of investigations that were aided by the sharing of knowledge.

The idea of time became regulated with the invention of the clock and the permanence of the book as a recorded event established a position within linear time frame for the early Modern literate population. The modern emerging literate population began to assign meaning to the authority of the text. The meaning in a text was analyzed with the empirical tool of logic and it followed a linear progression.
CHAPTER 5
THE TWENTIETH-CENTURY

5.1 From Gutenberg to Remington

From the invention of the printing press in the western world by Gutenberg, to the creation of the typewriter by Remington, European culture from the end of the fifteenth century to the twentieth century underwent a complete transformation that affected the ways in which space, time, and the meaning of word were understood. The significance of that change is so profound that it is only now in the late twentieth century, that western culture is undergoing a change of similar magnitude, that scholars have been able to understand the true significance of that change, and the factors that precipitated it: the existence of the technology of the printing press, the understanding that was carried forward by the Stoics that language is complex on a metacognitive level, and through Ockham that a phenomenon was understandable and distinct from the notion of faith.

The technology of the printing press changed the nature of literacy and the notion of time and space. After the printing press, the reader of the text and the author began an intimate dialogue that was non-allegorical and non-theological. The intimacy centered around the individual silent reading of the text that became the norm for an entire culture that had, for more or less one thousand years, used writing for speaking. The reflective quality of the word on a page that encouraged the use of writing for reading and the idea of the book were the result of the separation of
theology from science. This idea as expressed by William of Ockham allowed for the rise of empirical science that resulted in the changes that are being discussed in the twentieth century. This chapter will look at the how the changes in technology, philosophical meaning and the metacognitive use of language have been examined by twentieth century artists and writers as they began to redefine the nature of the world after the work of Einstein and the advancement of technology in the twentieth century.

5.2 Introduction

This chapter will consider some of the trends that have taken place in the visual and literary arts of Euro-American culture during this century as a result of changes in communications technology. Discussions by critical theorists on visuality and literature (poetics) have divided image from the text considering image and text as separate aspects of communication. The actual development of visual and text styles throughout this century, however, has shown that the two are inextricably intertwined. They are mutually influential. The framework of this discussion will outline the triadic relationships between visual art, poetics, and graphic commercial art. The discussion will outline the general background of the visual art world at the turn of the century. Within this background the concept of abstraction as it relates to twentieth-century art and literature will be developed. Following that will be a survey showing the emergence of parallel patterns of abstraction in the technology of communication, fine arts, and commercial advertising as well as common cultural influences that have affected communication.
Each of the art forms will be discussed separately as they relate to a specific period and change in technology within the century. The overview will show that there is a cyclical relationship in the level of abstraction in the arts to the newness of a technological advance. At this time, the search for abstraction has created a resurgence of the primacy of the visual in which an image may also consist of the text.

5.3 Education

The nineteenth century was a period of educational change in England and the United States. In the United States, primary school education became common by 1830. In England, by the 1880’s, Matthew Arnold recognized that the social need was to “cultivate the philistine middle class, who have proved unable to underpin their political and economic power with a suitably rich and subtle ideology.... English was literally the poor man’s Classics a way of providing a cheapish ‘liberal’ education for those beyond the charmed circles of public school and Oxbridge”(Eagleton 23).

Many of the theorists and artists who would make up the body of twentieth-century literary criticism and art production were educated as a result of the availability of general public education which broadened the base of the culturally informed persons within the general arts society. The accessibility of public education in this century has expanded, and become available at some level to everyone within the first-world countries. The visual arts and literature are now being created in a culture that has had a minimum of four generations of general education. As a result there is a population who have achieved “ a grasp of overall structure that is equally
essential for the intelligent assessment of social situations or the solution of scientific problems” (Eagleton 198).

However, even now among psychologists and educators the value of academic abstract thought is still considered more valuable than intuitive abstract thought. Arnheim perceives that the difference between the natural person in Lock’s terms or culturally deprived person in his terms, and the intellectually trained person is their linguistic perception. The less academically educated person is not able to respond to verbal questioning and is more oriented to visual symbols.

Symbol is a term used indiscriminately in common language to refer to an entire whole range of images and signs. A corollary to this idea is that half of the population in the United States, who are educated and employed, spend their days making references to things rather than creating things. This has resulted in a loss in the knowing of the tangibility of an object and has led to pathological alienation and detachment of individuals with their surroundings (Arnheim, Visual Thinking 203).

5.4 Print And Media Technology

The development of a combination of four machines late in the nineteenth century made the process of high speed presses and automated printing possible. Early in the century Henri Fourdrinier designed a machine in which paper could be fed by the roll instead of by the sheet. By mid-century the typewriter, invented by Christopher Sholes in 1867 and manufactured in by Remington in 1874 during the age of progress, made rapid keyboarding possible.
The linotype machine, designed by Mergenthaler, linked the typewriter keyboard to the casting machine, enabling the rapid composition of typeset. Lithography was made possible through the invention of the pantographic punch cutting machine in 1884.

"The impact of these combined inventions was a rapid escalation in the quantity of materials in print. Visual language overflowed the limits of intimate space and the engagement of public space; and public readership, through the seductive dynamics of display typography, played a significant role in transforming the experiences of language from that of a literary, legal, or business transaction to one of overblown commercial persuasion succeeding through tactics of rhetorical persuasion "(Drucker, *Alphabetic Labyrinth* 242).

The opening of this medium to a large audience inspired artisans to create numerous typefaces to satisfy the requirements of the public and artists to experiment with type.

The ability to reach a mass audience throughout the world came about as a result of the introduction of the radio in 1920, television after WWII, and satellite transmissions in the 1960's. New industries were created as a result of these media: radio and television broadcast, television studio production, and advertising. The standardized formats of radio and television have built a common form of culture through the United States and other countries where they are in widespread use. The influence of the media programming and its accompanying advertising has had a profound impact on late twentieth-century culture.

A second and equally profound influence on the culture of the Western world was the invention and implementation of an operating computer in the late 1940's. The computer has transformed the ways in which business is conducted and
information is shared. The development in the 1980’s of the personal computer and desktop publishing is as significant a contribution to technological change as the movable type printing press and the linotype machine. There has been a tremendous increase in the number of items in print again, and the technology is still being refined as a business and artistic tool.

The Internet is the latest technological change that is considered in this chapter. The Internet allows for the instantaneous access to information around the world. Millions of individuals can now control where they will go electronically from their computers. The social and artistic changes that this medium will create have yet to be determined. Electronic communication which is a highly personal experience die to the vast array of unregulated data available on-line. It is the new frontier of communication.

5.5 Philosophy

In academic circles, an American philosopher, Charles Peirce, introduced the theory of semiotics to account for how people form their relationships of meaning in communication. Later, the Swiss philosopher Ferdinand de Saussure expanded Peirce’s theory to explain the function of language in a series of lectures, which were compiled into a book, Course in General Linguistics, in 1916. In Visible World Drucker writes, “The structural aspect of de Saussure’s linguistics anchored his semiotic interpretations in a social frame: language was inherently cultural, ideological and specific to a particular time and place. He posited the structure of the
sign as an abstraction as universal, but all linguistic signs were specific to the system within which they gained value" (35). At the beginning of the century de Saussure separates language from the act of speech. Language is speech less speaking. It is a social convention that blends with the life of society and is a prime conservative force. Language, as a system of parts, must be considered as a synchronic whole. In order to understand what the speaker is saying, you have to discard knowledge of the past, the diachronous evolution of language, and focus solely on the present meaning of the word. The application of meaning is through the choice of specific words/images to convey an idea. The use of word in Western language, although based in Sanskrit, where the word (langue) embodies the sound of the object (parole) being identified, is arbitrary. Any word can, by convention, signify any object.

"But what is language [langue]? It is not to be confused with human speech [langage], of which it is only a definite part, though certainly an essential one. It is both a social product of the faculty of speech and a collection of necessary conventions that have been adopted by a social body to permit individuals to exercise that faculty. Taken as a whole, speech is many sided and heterogeneous; straddling several areas simultaneously—physical, physiological, and psychological—it belongs both to the individual and to society; we cannot put it into any category of human facts, for we cannot discover its unity" (de Saussure 9).

Language is a self-contained whole and a principle of classification. As soon as we give language first place among the facts of speech, we introduce a natural order into a mass that lends itself to no other classification (de Saussure 9). With regard to grammar he goes on to say that "Grammar studies language as a system of means of expression. Grammatical means synchronic [descriptive of a specific time period] and
significant, and since no system straddles several periods, there is no such thing as "historical grammar"; the discipline so labeled is really only diachronic [change in language over time] linguistics" (de Saussure134). de Saussure regards language as the heritage of the preceding period; it is a social institution that is a product of historical forces. The forces of change in a society always result in a shift in the relationship between the signified and the signifier (de Saussure 71).

The entire body of a language will not change during the course of one lifetime based on the principle of immutability. However, because change occurs naturally in living organisms, language will undergo normal changes generation to generation. In terms of de Saussure, the movement over time of writing to electronic texts can be considered as a natural evolution of language. Changes that would naturally occur in letters of words would be normal (136). Absolute change in a short period of time would be very rare, although over long periods of time languages completely change (146). It would be conceivable that the construction of language as we know it could undergo significant change within the parameters of the culture. The work of de Saussure focuses on the alphabetic word with no mention of the dynamics of the pictorial image.

The philosopher Ludwig Wittgenstein furthered this examination in the later half of the century with his discussion of language as a response to, and a reproduction of, the real, in *Philosophical Investigations* (1953). Wittgenstein's work ties in with De Saussure's and extends the discussion of word to include image as a concept and experience. Wittgenstein says that the purpose of language is to express thoughts
the meaning of a word is its use in the language (Phil. Inv. 43). *Sentence* and
language have no formal unity, but are the family of structures more or less related to
each other (Phil. Inv. 108). Word language allows senseless combinations of words
image language does not. Pictures and drawings follow the same principle (512).
Although he is not expressly referring to metaphor here, his expression *image
language* indicates that he is indeed referring to metaphor. An image may be
construed as a super likeness, it has a more powerful resonance than a picture and
cannot be mistaken as anything other than the image that it represents (389). A
picture presents a clear image, but the employment in terms of verbal expression may
be muddled (426). The problem lies in the difference between thought and reality; if
we wrongly identify something, that wrong identification for us is real (429). We
need to get past the obstacle of how we understand the meaning of a sentence (435).
Understanding a sentence is akin to understanding a theme in music. A musical theme
has pattern, rhythm, and sound. We can understand also that sometimes we cannot
imagine something which we believed we could imagine. This leads us to revise what
counts as the domain of the imaginable (517). Wittgenstein’s concept of the method
of understanding language and the “game” of assigning meaning is in harmony with
McLuhan’s idea of resonance in aural space for language—if we cannot imagine it
does not mean that it doesn’t exist—and de Saussure’s understanding that language,
signification and meaning changes over time in a culture. The sound and pattern of
the expression convey a large portion of the meaning of the sentence, as well as the
use of imagery whether they are figurative or literal.
McLuhan's analysis of the 'sensibility of the percept of simultaneity' of electronic technology returns Western culture to a version of the ancient Greek conception of logos. This, however, signifies the need to return to a view of the individual as being more anonymous in the sense of integration, rather than separation in the community. The highly influential writings of the philosopher Derrida (1970's) have added to the discussion of how to determine the meaning in a communication. Derrida's gram (unit of information) takes its meaning from its relationship to prior grams. All meaning is based on prior meaning. "The term differerance, which Derrida introduces...alludes to this undecidable, non-synthetic alternation between the perspectives of structure and the event. The term differer means to differ and defer, but the ending ane, which is used to pronounce verbal nouns, makes it a new form meaning - difference-differing-deferring. Derrida's silent deformation of the term, as well as showing that writing cannot be seen simply as the representation of speech, makes apparent the problem that both determines and subverts every theory of meaning; the value and force of a text may depend to a considerable extent on the way it deconstructs the philosophy that subtends it" (Culler 97-98). These critical frameworks provide the basis for much of the analysis of twentieth-century art and literature. They are attempts to dissect the form of a communication into small units in order to understand how meaning is formed in the communication. The principles of semiotics that apply to both the visual and literary arts and the philosophical ideas of Wittgenstein and Derrida are more applicable to textual studies.
5.6 Abstraction

The natural combination of the image and the written word, which had historically been considered together, was divided into two distinct subjects in the discussions of visual communication by twentieth-century art historians and literary critics. Unlike the medieval texts where the image, the marginalia, and the text combined to present the message, or the cathedrals where every image was used to tell a story to the illiterate public, by the twentieth century art-in-paintings had evolved along with the culture and were a separate field from the written word of literature. The field of graphic art and advertising, however, combined the two elements. The development of abstract and conceptual presentations were pursued, independently in fine arts and literature, and advertising.

5.6.1 Arnheim’s Definition

What is abstraction, then; what is its function and how does this relate to communication in the arts and commerce? Following is an edited quotation from Rudolf Arnheim in which he sets out the rationale for abstraction in visual thinking and communication.

“In painting or sculpture, the artist endeavors to abstract a movement or action in a timeless image. Such a static image crystallizes the nature of a more complex event in one arresting pattern; but it also suppresses the action and reduces the variety of phrases and appearances to a single representation of them all. One can express this view of abstraction in the language of gestalt psychology by saying that many phenomena of experience are variations organized around Pragnanzstufen, phrases of clear cut structure. At times the
variations deviate so much from the *Pragnanzstufen* that they are no longer readily acknowledged as dependents of that particular concept. For certain purposes, perceptual artistic, or scientific, it is necessary to be able to stretch concepts beyond what the primary evidence suggests. In some instances, the variations of a conceptual theme are organized around a single highspot, dominant enough to create secondary concepts under the common abstraction there may be more than one high spot of similar strength. In some cases, they can be so different from each other that to see the unifying factors between them may require a mature understanding” (Arnheim 183-184).

In active thinking, notably in that of an artist or the scientist, wisdom progresses constantly by moving from the more particular to the more general. It is by the gradual differential of those early perceptual concepts that thinking proceeds towards refinement.

This process of refinement requires abstraction which is the withdrawal from direct experience. While one is viewing particulars, one is thinking of generalities. In order to acquire sufficient generality, the concepts of a thinker must transcend the particular aspects from which they are taken. At the same time, they must also continue to reflect their referents. For the viewer of a work to understand the communication, there must be, on some level, a notion of what the communication is all about. O.B. Hardison Jr. expresses the idea that “anyone seriously interested in art today is aware that languages that emerged in visual art in the early twentieth century were enigmatic only because they were not understood. As people came to understand them, they were seen to be languages with profound lessons to teach” (59).
5.6.2 Active Abstraction

Observation of the various movements in the arts during this century reveal this process in action. Artists and poets in the early part of the century focused on the particular word and image in an attempt to perceive and reorder their way of viewing and understanding the meaning of the language and the imagery around them. Action has been precipitated by a number of factors here the primary factors being considered are print technology, the linotype and the lithograph in the early part of the century, and the media and the computer in the later half of the century.

5.7 Early Twentieth Century Typography, Poetry and the Visual Arts

Among the poet-artists that experimented with typography and the presentation of the word and its meaning was Stéphan Mallarmé. His poem "Un Coup de dés" was first published in 1898 in a typical typeset. Its posthumous reprinting in 1913 in "La Nouvelle revue francaise", however, honored Mallarmé's intentions for typesetting. This poem in both form and content formed the basis for all modernist poetry that came after it. Mallarmé worked with words and phrases as text and as figure in the composition of his page. The placement of his words was an integral part of their meaning. "Insofar as figures are created in Mallarmé's poem, they are abstract and dynamic the textual elements forge links of meaning in their visual and verbal relations, but those relations function as their own gestalt, not as the trace or image of some other figure form" (Drucker, Visible Word 55).
The first quarter of the century was an intensely creative time when both commercial type-artisans and poets, drawing on their visual experience with commercial art, experimented with type and the meaning of the word. Four art movements can be identified in the experimentation: the Symbolist movement of which Mallarmé was a member, the Futurist movement of which Filippo Marinetti was a member, the Russian Futurist movement of which Zdanevich was a member and the Dadaist movement of which Tristan Tzara was and Kurt Schwitters were members. These movements were influential in the later development of Cubism and Surrealism. (These movements do not constitute the entire field.) Dozens and dozens of journals sprang up within the decade prior to 1923. The commercial journals and advertising were concerned with rhetoric; the emphasis of meaning was placed on the reader. The artistic works focused on the semiotics of the words themselves as they referenced the work on the page. This emphasis on the language shows up again later, at the end of the century, in the language poetry of Bernstein (Perloff, *Radical Artifice* 185-187).

Four artists who represent the activity of the early twentieth century are included here. Filippo Tomasso Martinetti's work placed the emphasis of the work on discourse and signification, rather than reference and description by allowing the words to become ambiguous. His work is an unintentional presentation of de Saussure's distinctions in his description of the sign (Drucker, *Visible Word* 138). Whereas Apollinaire’s work experimented with a topiary style of shaping the words to create a painterly presentation on the page. He was not a part of any particular
movement but his work embodied the characteristic rhetoric of presentation, rather than representation that characterized the first few decades of Modernism. As a Cubist he was not concerned with the traditional rules of poetic order, and worked in a formalist collage manner with his language. In his work, as in more recent works the reader is made an active participant in deciphering the meaning of the work.

The Russian Futurist Zdanevich, the third writer under consideration, worked with typography as part of his aesthetic throughout his career. His work is a synthesis of common notions as opposed to original ideas. “His work demonstrates a relation between the visual representation of language and the production of linguistic value. The conceptual category to which the association should be made was a novel one, for the phonetic elements and the visual forms were both linguistic elements. The emphasis was on the signifier which evoked something other than meaning; the signifier became a physical experience rather than a clear mental concept” (Drucker Visible Word 172).

The Dadaist work of Tristam Tzara pushed the definition of poetry at that time to the limits of the definition. Still his work was useful in its investigation of the social and cultural functions served by language. His work was specifically concerned with typography and was taken from the advertisements of the day. He sought to show how the image was connected to the history of the moment, that the work was a product of its culture. This set him apart from the work of the other Dadaists who sought to prove the opposite. Later, in another realm, Marcel Duchamp would use urinals and rakes to prove the same societal referentially.
The next shift in the typographical presentation of poetry came in 1952 from Ernst Gomringer and the concrete poets. This branch of poetry emphasized language as image. Concrete poetry encouraged a merging of the aspects of word and image. Visual Studies Arts - like the works of Johanna Drucker, Steve McCaffery, and Susan Howe – follow this idea in their investigation of the word as a visual medium within a culture. These works investigate the interplay of intuitive and intellectual cognition with language and form. These artists take the idea that "language is an essentially conservative and stabilizing form, and investigate the word as language and as a non-linear medium (Arnheim 244).

Painting moves from the representation of an image to the abstraction of an image, which is still recognizable—then, almost immediately, it moves to imagery that is purely abstract. Sometimes, as in the case of Mondrian, it is mathematical in its emotional content. Modernism in painting was an attempt to break from the prescribed traditional rules of evaluating an image as a societal reflection and look instead at the specific elements of communication within an image. In order to do this the images needed to be reordered--thrown into new frames of reference. Three sets of artists will be considered to see how new frames of reference were created through the abstraction in their work.

Beginning with Cézanne (1839-1906) the Western concept of the construction of an image was broken down into its components through abstraction. He is considered the father of abstraction. His work was so unique and original that, like Picasso, he is not identified with any particular school; he created works in the
existing styles of his contemporaries as well as his own. In a letter to Emile Bernard in 1904 he said, “Allow me to repeat what I said to you here: treat nature by means of the cylinder, the sphere, the cone, with everything put in perspective so that each side of an object is directed toward a central point.” In “Still Life With Apples” (1893-94), Cézanne shows objects in a variety of perspectives on the same plane. The painter has replaced the essence of a viewer at the scene by including the perspective that one would have if she was actually standing in front of the setting. All of the realist elements of a traditional painting are literal and the viewer must shift her perception to discover the multiple perspectives. The ability of the viewer to move form one perspective to another enhance the interactive quality and timeless excitement of the work.

Pablo Picasso (1881-1973) like Cézanne transcended classification. His work the Demoiselles D’Avignon is considered the first modernist art. Here however his collage “Guitar” (1913) will be discussed. “In isolating and expressing the principles both of discontinuity and of construction, collage is the quintessentially modern expression of Modernism’s loss of faith in historically transmitted authority, and its building of its own unique and optimistic tradition: of ideally self-contained and self sufficient objects; freely independent objects, more in the world than of it” (Elderfield 76). Picasso, following the ideas of Cézanne, eliminates the realistic view of the subject. The elements of the composition are reduced to geometric symbols, assembled in a variety of perspectives which come together, by any path that the eye takes to form a whole image that never becomes a literal rendition of the guitar.
The work of Paul Klee (1879-1940) when compared to the work of Pierre
Auguste Renoir (1841-1919) reveals the very great difference that can exist in the
representation of what is essentially the same image. In the Renoir portrait, “Girl
With a Parasol” (1883) the technique of the painting was impressionist but the portrait
is painted in a realistic style. This work of Klee forces the viewer to use his
perception to reach a reasonable conclusion about the subject matter of the picture.
The ability of the viewer to formulate the portrait of a woman in a garden is based on
Klee’s sophisticated use of symbols and the views ability to employ what Perkins calls
experiential intelligence.

The final pair of artists, Jasper Johns (1930-) and Tina Salvesen (1950-), both
employ the use of common symbols in their art to evoke the identification by the
viewer of his personal relationship with these images. The abstraction lies in their
lack of referencing anything but the drawing. The viewers attention is drawn to the
wholeness of the image and the directness of its presentation. Because of the
starkness of their presentation the viewer is forced to consider his own meaning and
emotional relationship with the icons. Johns’ drawing “Savarin” (1977) draws up any
number of reflections on the meaning and value of what the can is about. It operates
as an illustrative icon of a part of our culture. Salvesen’s work “Glory VI” (1996) a
sign and a symbol configured in a form entirely out of context with the intent of the
flag- leaving the viewer to enter in personal reverie of memories and associations.

Improvements in the efficiency of the printing trade made the development of
the advertising industry and the lithograph machine made the production of
advertising fliers on a mass scale possible. The avant-garde designers of these ads and poets of the 1910’s became the graphic designers, teachers, and systematic theorists of the 1920’s and 1930’s. Avant-garde became mainstream commercialism. Clean line became a demand. The practitioners who had been a the forefront of the avant-garde developed the mass media techniques that would dominate advertising in the twenties and thirties. Before WWII, graphics had evolved into a separate industry acknowledged as an academic discipline to make and perpetuate corporate industry.

The impact of this shift of the avant-garde from the fine art world to the applied art world had profoundly affected culture in both Europe and America. As an academic discipline graphic design and advertising attracted some of the most talented individuals in both design and literary prowess. Initially advertising was a jumble of seemingly chaotic typefaces and mundane messages, but it quickly developed into a highly sophisticated communication form. Note the advertisements in the illustrations in Jan Tschichold’s *Typography*. In this book Tschichold formulated Modernist theories into a system for the practice of typography for use in commercial printing. This book defined the modern attitude to typography and its application in all aspects of the printing business. In America and in Europe the text oriented advertising of the twenties gradually shifted to image oriented ads by the sixties and state of being ads by the nineties. The influence of radio and television programming as well as advertising has had a significant impact on American culture as well as the cultures to whom America exports her lifestyle. Certeau in *The Jabbering of Social Life* says,
"Seized from the moment of awakening by the radio (the voice is the law), the listener walks all day through a forest of narratives, journalistic, advertising and televised..."

In advertising, as it has become more widespread and dominant in every aspect of the society, the verbal content (in a commercial) or the textual content has gradually been diminished and the use of imagery - pictures and manipulations of typography have become the dominant style element in visual presentations. This conditioning has come about as a result of training in which the public has been subjected to mass campaigns for one-hundred years. Perkins argues that knowledge of the background of visual images is crucial for understanding the culture (25-35). The public has a background of shared information from radio, television, print that they bring to the current material when determining its meaning. There is no meaning to the ad if the viewer does not have prior frame of reference for the information. These campaigns have used multiple media to deliver their messages. The images are not subject to the confusion that text might cause. The text that is written is more in the nature of labeling to foster a brand image.

5.8 Conclusion

Both the literary and the visual arts have grappled with the issue of the cognition of the image. They have been concerned with finding a new way of seeing. The Greek culture experienced a shift in cognition as it moved from an oral to a pre-literate society. Western European culture underwent another change in cognition with the development of print technology. A third shift is in the process, as electronically
based, technologically oriented countries move into an electronic-based culture. In literature, Mc Luhan points to the works of Eliot for his understanding of auditory imagination (102), Yeats for his return to the sound of the word, and Joyce above all for his mastery of the multidimensionality of the novel as world. In poetry Richard Kostelanetz has identified three types of experimental poetry forms that have appeared again in this century: concrete poetry that is concerned with the breaking down of the syntax of the word; visual poetry where, unlike other kinds of poetry, words are enhanced by visual means and “remembered in the same form as they were originally expressed as a single visualizable picture” (Kostelanetz 284), and aural poetry or ‘text-sound’ where the sound of the word without musical accompaniment is expressed. Text sound poetry does not carry linguistic meaning. Text sound poetry “must be heard sound-word by word sound. Even when put into print, text sound art is addressed to the ear” (Kostelanetz 169). The experimental works of Mallarmé, Appolinare, e.e. cummings, Cage and Kostelanetz himself all work to disrupt the conventional hold of print on the page. In many ways they are the precursors of cybertext, electrically generated interactive texts, and what Aarseth calls ergodic literature, that is, literature that requires a non-trivial effort to traverse the text (Aarseth 1). In painting the idea of the fourth dimension of time is explored in the work of Cézanne and the Cubists. “Cubism as a new form or language is about time and the manipulation of time: figure and ground carry equal weight so that space and solidity are interchangeable” (Salvesen). The surrealist movement, as exemplified in the work of Salvador Dali, explored the psychological dimensions of the mind
revealing the tactile reality of the realness of the visions of the mind and time in a conscious and unconscious state. McLuhan suggests that the deconstruction of conventional spatial representation creates an awareness of the mosaic quality of multidimensional space and that this awareness anticipates the graphical capabilities of the computer medium, as well as the concept of dynamic layering of information.

The awareness of a need to view form, image and word in a new way has been the focus of the entire twentieth century in the arts. The changes that were experienced throughout Europe as a result of the rise of vernacular literature, the separation of reason from faith that signaled the rise of empirical science and the continued recognition of the complexity of the metacognitive properties of language have repeated themselves in this century and have come again, to change the nature of the Western concept of space, time, and meaning.
CHAPTER SIX
CONCLUSIONS

Writing at the edge of the millennium takes place within a textual culture that is seeking to redefine itself in space, in time and through metaphor. The electric technology of Western culture of the late twentieth century is shaped by an awareness of the multidimensionality of space. Einstein's recognition of the fourth dimension of space, in the earlier part of the century, has been expanded, in the later half of the century, by Feigenbaum's chaos theory and the development of the idea of phase space that suggests the possibility for five or more dimensions.

"Phase space is one of the most powerful inventions of modern science. Phase space gives a way of turning numbers into pictures, abstracting every bit of essential information from a system of moving parts, mechanical or fluid...two dimensions...that could be shown on the computer as color] did not begin to cover the kinds of systems that physicists needed to study...spaces of four, five or more dimensions tax the visual imagination of even the most agile topologist." (Gleick 134-135).

The laws of media with respect to space, time and meaning, as they have been perceived in the past, when William of Ockham, Gutenberg and the rise in the vernacular transformed the Western perception of textual culture, are in the process of being broken down and reformulated.

The law of space is redefined geographically and aesthetically. Geographical space has become relational to time rather than to distance or location. The boundaries of physical distance that existed in the past have been dissolved with
electric transmission technologies. Communications are virtually instantaneous, real
time transmission is exactly that. Aesthetically space is no longer three dimensional,
and this causes the need to redefine our perception and consciousness to the
relationship to images and objects. What McLuhan terms audile space\(^1\) is radically
different from the Western European understanding of three dimensional linear
construction that has been held since Ockham. The neutral static, linear and
connected space, where figure rises and ground falls away, has been the perception
and use of two dimensional space from the twelfth century onward. Panofsky relates
that line, used on the unconditionally two dimensional surface of a material support,
transformed the loose optical unity of the Byzantine art of antiquity into a solid and
substantial unity...bodies and space are bound to each other. Subsequently if a body
is to liberate itself from its attachment to the surface it cannot grow unless space
grows with it at the same rate (Panofsky 50-52). The unity of body and space
collapses after Einstein with the conscious awareness of the simultaneous nature of
the fourth dimension of space, that reveals a structure where audile and tactile, as we
have known them, are inseparable and render a three-dimensional consciousness
obsolete. Even as Walter Ong writes that

“...The effects of print on thought and style have yet to be assessed fully...writing had
reconstituted the originally oral, spoken word in visual space...print embedded the
word in space more definitively (Ong 123).

\(^1\) Audile space refers to the universe (background) and is based on the ancient concept of space as
spherical and multisensory. In modern terms space is a continual inward sphere that is both
multidimensional and infinite. Audile space has a resonant quality; there is no figure and foreground,
only a dynamic environmental mosaic that is discontinuous and diverse. Audile space is a flux in which
figure and ground rub against and transform each other (McLuhan 23, 33).
The fourth dimension is forcing another equally significant redefinition of the word in space, and one that is connected with the idea of time and meaning.

The law of media with regard to time has been redefined as immediate and non-sequential. Instantaneous availability of information and of transmission allows for asynchronous signification. Everything is equally present within the audile space but not everything within that space is either in rhythm or in sequence. Mc Luhan observes that writing, from the rise of the printing press on, has been based on the ascendancy of linear brain functions over non linear functions (McLuhan69). Electric communication that supersedes the linear printing press functions in a simultaneous non-linear mode that is inconsistent with the linear orientation of the printed book. The inconsistency arises because the author and the book are the figures in relief on a mosaic ground that is in flux. The epic poet who hastens into the action and precipitates the hearer into the middle of things as Horace writes in his *Ars poetica* (Ong 142) is closer in many ways to the state of asynchronous time. Baron points out that contemporary scholars feel that culture is moving away form the patterns and habits of the printed page.

Some have even argued that cybersauts are entering a period of what Ong called secondary orality. The emergence of cyberspace presages more that just a new medium for swapping messages. If Negroponte, Fowler and others are right, global networking will redefine how we work, how we socialize and how we learn (Baron 19).

The difficulty that McLuhan sees arising within the culture is that people, trained in left hemisphere print-oriented functions, are working in right hemisphere electronic
environments where information structures are simultaneous, discontinuous and dynamic. Within this atmosphere "it isn't the messages that travel at electric speed: the sender is sent, minus a body, as information and image, and all the old relationships of speaker and audience tend to be reversed" (McLuhan 67-77,109). 

As the relationship between the speaker and the audience becomes reversed, meaning is reconfigured. McLuhan and Wittgenstein have suggested that language be regarded as metaphoric (McLuhan 120-128; Wittgenstein 216). The search for a redefinition of meaning that integrates text and image in an alphabetic and pictorial way has been the subject of experimentation with the art community of poetry, painting and prose throughout the twentieth century. This experimentation has sought to find a more lyrical and resonant use of language within the textual audile space that, at this moment, we know as electric-based writing and print and Internet transmission. By redefining the meaning of language in a more resonant way and image oriented way, multiple images of sound, alphabet and pictorial images can be combined in an asynchronous way that is in harmony with time and space. In this way tension that currently exists between the linear use of work in a non-linear technology and consciousness is resolved. Each element can signify discretely and the mosaic of the resulting combination produces the meaning. This understanding of meaning is redefined through the use of images and allows them to stand as metaphors thus allowing the language to perform in a more intimate way with the reader.

These three elements, space, time and meaning are the same characteristics that signaled the threshold of change from the ancient and medieval culture, when
space went from two dimensions to three time became linear and progressive, and the
signification of meaning in words was determined to denote individual objects,
thereby allowing for the establishment of empirical, scientific reasoning. At the end
of the century we are at the beginning of a new threshold where the answers will be
found in a reconfiguration of space, time, and meaning.
WORKS CITED


