

A RHETORICAL PROCESS FOR SCHOLARLY SELF-PUBLISHING

A DISSERTATION

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

IN THE GRADUATE SCHOOL OF THE

TEXAS WOMAN'S UNIVERSITY

COLLEGE OF

ARTS AND SCIENCES

BY

JACKIE L. MACLELLAND, BA, MFA, MA

DENTON, TEXAS

MAY, 1995

COPYRIGHT © Jackie L. MacLelland, 1995

All rights reserved

For the Next Generation
Charles Gatewood MacLelland V
Madison Elizabeth Strother
and
Bailey McClain Cummings

ACKNOWLEDGEMENTS

Like all dissertations, this one has been a work of dedication on the parts of many. It thus owes its existence to those who helped make it possible. Simply acknowledging the people who were so vital to this last great thrust toward my doctorate seems a paltry means of repaying so much work, time, patience, and endurance. But as there is no other way, I humbly extend my gratitude to the professors at Texas Woman's University who imparted their knowledge and who acted as exemplary roles models. I also extend my appreciation to my tireless committee members, Turner S. Kobler and Frank A. Longoria. William E. Tanner, my director, who has been my teacher, my mentor, my cheering section, and my best friend, deserves particular recognition; he always encouraged and supported my steps to the next levels and his faith in me never wavered.

I also thank those overworked, but generous people who gave their time to my survey (included in this dissertation). Their help was crucial to Chapter 2, which certainly would not have existed in its present form had it not been for their contributions. My heartfelt thanks to Laura B. Kennelly, University of North Texas; Christine Bishop; Martha J. Haun, University of Houston; Fred Tarpley, East Texas State University; John R. Christopher, Tarleton State University; Theresa Enos, University of Arizona; Brian A. Bremen, University of Texas at Austin; Elizabeth

Mills, Southern Methodist University; Charlotte Wixom, University of North Texas; J. R. LeMaster, Baylor University; Paul Lister, Sul Ross State University. I also thank those who filled out and returned the form but who asked that I not acknowledge them by name.

Last minute changes and corrections could not have been accomplished without the kind assistance of John Hepner of Texas Woman's University's Blagg-Huey Library. His help, beyond the ordinary call of duty, was cheerfully given and gratefully accepted.

Lastly, I extend my gratitude to my husband, C. G. "Chip" MacLelland III, and family, C. G. "Chuck" MacLelland IV, Russell MacLelland, Stephanie Sean Cummings, C. G. "Corey" MacLelland V, Madison Elizabeth Strother, and Bailey McLain Cummings, all of whom persevered through the long, dark night of educating Mother.

A RHETORICAL PROCESS FOR SCHOLARLY SELF-PUBLISHING

JACKIE L. MAC LELLAND

MAY, 1995

ABSTRACT

Extrapolating from theories of ancient and modern rhetoricians, particularly those of Mikhail Bakhtin, who insisted on the primacy of dialogical context as sign and on the importance of sign for creating meaning, this dissertation argues that scholars, increasingly excluded from traditional publishing channels, empower themselves through technology currently available. Based solidly in the premises of the rhetorical canon, this dissertation illustrates methods which scholarly self-publishers may use to create and extend the dialogical process and thereby create communities, meaning, and reality. Chapter 1 establishes the context in which this study is undertaken, examining philosophies which both underlie and support it. Chapter 2 offers a discussion of the rhetorical process which gave impetus to the survey used to gather information for this dissertation, along with an evaluation of that survey. Chapter 3 considers the human impulse for order and the role of arrangement (order) in the rhetorical process of self-publishing. Chapter 4 advises scholars on the considerations and implications of visual rhetoric, and Chapter 5 describes the various electronic media available to scholars who may empower

themselves through the publishing process, a process which not only allows them the vital opportunity to extend the dialogical process to create fields of meaning and communities of reality, but one that also allows them to control, completely, the way in which these messages are received.

TABLE OF CONTENTS

DEDICATION	iv
ACKNOWLEDGEMENTS	v
ABSTRACT	vii
LIST OF FIGURES	xi
CHAPTER	
1. FROM THE VERBAL TO THE VISUAL	1
<i>Changes in Publishing</i>	5
<i>Signs and the Ancients</i>	10
<i>Signs and the Moderns</i>	13
<i>Theory and Friedrich Nietzsche</i>	15
<i>Theory and Mikhail Bakhtin</i>	16
<i>Theory and Dialogue</i>	17
<i>Conclusion</i>	18
2. VISUAL FORM AND VERBAL FUNCTION	20
<i>The Survey and Its Audience</i>	32
<i>Design and the Survey</i>	33
<i>Visual Consideration and the Survey's Design</i>	36
<i>Decoder Response</i>	40
3. THE DIALOGICAL CONTEXT AND THE RHETORIC OF ORDER	50
<i>Order and the Human Psyche</i>	50
<i>Organization and Published Discourse</i>	59
<i>Organization and Control of Self-Published Discourse</i>	64
<i>Organization, Organization, Organization</i>	66
<i>The Opening</i>	69
<i>Arrangement and the Message</i>	71
<i>Arrangement and the Conclusion</i>	74
<i>Arrangement and the Medium</i>	74
<i>The Final Analysis</i>	78

4. THE VISUAL DIALOGUE	81
<i>Type Face</i>	99
<i>Legibility and Readability of Type</i>	101
<i>Dividing the Textual Sign</i>	105
<i>Heightening the Textual Sign</i>	107
<i>Ordering the Textual Sign</i>	109
<i>Fusing the Textual Sign</i>	117
<i>Space</i>	118
<i>Color</i>	120
<i>Conclusion</i>	122
5. ELECTRONIC TECHNOLOGY AND RHETORICAL EMPOWERMENT	126
<i>The Internet</i>	135
<i>Internet Services</i>	137
<i>Bitnet</i>	138
<i>World-Wide Web</i>	139
<i>Electronic Publishing</i>	140
<i>On-Line Programs</i>	143
<i>Computers: Software and Peripherals</i>	146
<i>Word-Processing Software</i>	147
<i>Desktop Software</i>	151
<i>Graphic Software</i>	152
<i>Electronic Technology and Memory</i>	156
WORKS CITED	161

LIST OF FIGURES

2.1.	Letter for Experienced Authors, Editors, Reviewers, and Publishers	26
2.2.	Survey for Experienced Authors, Editors, Reviewers, and Publishers	31
2.3.	Chart for Measuring Verbal or Visual Dominance	36
4.1.	"The Altar."	86
4.2.	Example of Concrete Poetry	93
4.3.	An Example of Visual, Typographic Impact in Verbal Message	94
4.4.	<i>Serif</i> and <i>Sans Serif</i> Typography	99
4.5.	A Typographical Altering of Message	100
4.6.	Typographical Relationships	104
4.7.	Pie Chart Illustrating Visual Information	106
4.8.	Graph Illustrating Visual Information	106
4.9.	Figure-Ground Reversal	108
4.10.	Bulleted Text	109
4.11.	Hierarchally Ordered Message	111
4.12.	The Visually Heightened Message	112
4.13.	Limitations of Typewriter Technology	113
4.14.	Text with Shaded Background	113
4.15.	Visually Directed Discourse	115
4.16.	Parallelism	116
4.17.	Rigidly Defined Power Structure	116
4.18.	Portrait (Left) and Landscape (Right) Orientations	119
4.19.	Tri-Fold Orientation	119
4.20.	Limitations of Typewriter Technology	123
4.21.	Some Font Options Offered Through Computer Technology	124

CHAPTER 1

FROM THE VERBAL TO THE VISUAL

The sole excuse which a man can have for writing is to unveil for others the sort of world which mirrors itself in his individual soul.—Rémy de Gourmont

The published text is a dialogue that produces an encoded, linguistic sign that can be read, decoded, and interpreted by an audience. Published texts extend the process of dialogue beyond any single notion of genre. They make dialogue possible by allowing the creation of and participation in various epistemological formations. Self-publishing facilitates scholarly participation in this context by enabling scholars to present and control their textual signs. Because so much modern theory converges in dialogue, the dialogical context, as manifested in the textual sign, must emerge if a scholar is to share in theoretical constructs and to exist as a viable member of a discourse community.

A synoptic outline of the entire study will establish a context which will assist the reader. Innovations currently underway at university presses and commercial publishing houses, advances in technology, discoveries in theories and applications of rhetorical practices, as well as societal changes, demand a reassessment of rhetorical principles and applications. Acknowledging this edict, this study researches and reports on conditions that are now influencing production of scholarly texts. Using

Mikhail Bakhtin's theoretical premises, this study also establishes the gravity of the textual sign. Bakhtin's premises prove that the creation and production of the textual sign is paramount for scholars who would share in the dialogic context, by showing that it is only within this context that meaning and communication can take place.

Chapter 2 of this study evaluates the rhetorical design, delivery, and analysis of a Survey for Experienced Authors, Editors, Reviewers, and Publishers. This survey invited participation from over forty professionals in the field of scholarly editing and publishing. The chapter evaluates the rhetorical considerations that went into the design of this instrument. Because it was a work designed to elicit the cooperation of prospective participants (being a document with persuasive intent), the way in which questions were couched was extremely important. Evaluation of the survey's delivery is based on the findings of several contemporary rhetoricians. Rosemary E. Hampton, for instance, has written about the rhetorical nature of visual delivery and argues that "graphics and visual schemata are rhetorical" (348). Two works by Charles Kostelnick, "Visual Rhetoric: A Reader-Oriented Approach to Graphics and Design" (The Technical Writing Teacher 16.1 [1989]: 77-88) and "The Rhetoric of Text Design in Professional Communication" (The Technical Writing Teacher 17.3 [1990]: 189-202) also inform the evaluation of delivery of the survey. Kostelnick asserts that control of visual rhetoric enables "a writer to achieve the purpose of the document" (1989, 77). He illustrates convincingly the way in which graphic cues and codes influence reader perceptions. He believes the analysis to be

accomplished in the following two ways: (1) from the perspective of the rhetor (or encoder) and (2) from that of the audience (or decoder).

Chapter 3 begins with a rhetorical analysis of self-published monographs; it codifies and suggests possible strategies for arrangement. In addition to arrangement by theme and chronology, it describes other rhetorical possibilities, such as hierarchical arrangement, which may provide innovative rhetorical structures. In addition to the analysis of self-published monographs, this chapter relies on research gleaned from Editing: The Design of Rhetoric (Amityville: Baywood Publishing, 1989) by Sam Dragga and Gwendolyn Gong. Editing contains chapters which address the entire canon of rhetoric with the exception of memory. Dragga's chapter on arrangement discusses not only organizational principles inherent in the manipulation of text, but it also assesses the visual qualities of arrangement, as well.

Chapter 4 evaluates the rhetorical impact (delivery) precipitated by visual qualities of an electronically processed, self-published document. Covering rhetorical design principles inherent in visually coded textual signs, the chapter explores the creative role of electronic hardware as applicable to the textual sign of self-published dialogue. It also suggests ways to adapt rhetorical processes in order for scholars to empower themselves and become members of the dialogic community. Again, it calls upon the works of Hampton, Kostelnick, and Dragga and Gong. But in addition to these, it also relies on the works of Robert Connors and Stephen A. Bernhardt. Hampton finds visual rhetoric important. She argues that composition instructors

should be knowledgeable about presentation and that visual rhetoric should be incorporated into the teaching of composition (347). Kostelnick also finds visual rhetoric of tremendous importance in the communication of a writer's intent.

Practicing what he preaches, he uses graphics and typography to illustrate the effects of visually charged cues. Dragga and Gong also emphasize the importance of visual qualities as influences which color reader perceptions. Robert Conners, in "*Actio: A Rhetoric of Manuscripts*" (*Rhetoric Review* 2.1 [1983]: 64-72), argues that memory and delivery are the only two elements of the canon which composition studies have not successfully incorporated. His work undertakes, therefore, the inclusion of delivery, which he says can only mean the "manner in which the material is delivered" (64). Though his article is somewhat outdated, Conners is an early voice who conceives of the importance of visual qualities and their rhetorical impact on textual delivery.¹ Stephen A. Bernhardt's article, "Seeing the Text" (*College Composition and Communication* 37.1 [1986]: 66-78), is also an older piece of research, but it, too, contributes to this chapter. In it, Bernhardt discusses uses of white space, illustrations, typeface, symbols, and other visual cues and argues for student instruction in the deciphering of visual coding (66).

The final chapter, Chapter 5, explores the role of electronic hardware within

¹An even earlier voice, one which predates Conners, is that of William E. Tanner, whose "delivery, Delivery, DELIVERY," published in *Retrospectives and Perspectives: A Symposium in Rhetoric*. Denton, Texas: Texas Woman's UP, 1978, argued the preeminence of delivery.

the self-publishing process. It investigates the way in which electronic media adapts and changes rhetorical practices. The canon of memory, for example, almost totally eliminated from the contemporary study of both speech and composition (Reynolds 245), has gained new vitality through the almost limitless capacity of electronic storage (Mahony 14). The chapter, following suggestions of William E. Tanner, who argues that traditional forms of communication be supplemented or replaced by more efficient electronic communication (249), illustrates changes in the traditional canons of rhetoric necessitated by electronic communications.

Throughout, the study finds its most powerful impetus in Bakhtin's dialogic theory and his stress, in particular, on the dialogic significance of the textual sign. But the study also finds credence in the works of several other modern theorists, as well as in the ancient works of both Plato and Aristotle.

Changes in Publishing

In the past, university presses were the channels through which scholars could expect to publish their works and reach their audiences. Meaning and communication were created through these dialogical contexts. Transitions currently underway in global economic situations and social structures, as well as those in technological processes, have wrought tremendous transformations in the traditional modes through which academic scholarship reaches the public domain. Observing these changes in 1991, Paul J. Korshin wrote that "Those who remember the academy less than fifty

years ago may also recall that the scholarly works of many professors customarily went through multiple printings and even several editions . . ." (69). He further states that "this kind of publishing is impossible, or rather unlikely, today, even if there is a paradox in the fact that more Americans than ever are entering college while the books that the learned world produces seem to reach a narrowing rather than an expanding audience. . ." (69). On March 20, 1994, a Dallas Morning News article, "Outlook for the Publishing of Serious Books Is Gloomy," reported that Houghton Mifflin had closed Ticknor & Fields, that Harcourt Brace had fired half its staff, and that Paramount Publishing was closing Atheneum. The article reported on a recent meeting of the Ethical Culture Society, saying that one of its panels had considered the relationship between corporate profit seeking and quality publishing. Panel members had included Catherine Stimpson, former president of the Modern Language Association, and Gerald Howard, a Norton editor (12C). Additionally, the article detailed a scenario for the year 2001 which had been offered by the American Book Review editor in his presentation. The scenario merged QVC with Viacom and made Rupert Murdoch the owner of both Oxford University and its Press. (Murdoch is the owner of B-SKY-B in the United Kingdom; newspapers in Australia, the United States, and the United Kingdom; and the Fox Company in the United States. Potentially, he is the most powerful man in media in the world.) One of the most important observations the editor was reported to have made in his presentation was that traditional publishing was dead. Its death had occurred because of

the indiscriminate application of the freemarket mentality to 'product.' . . . The multinational corporate mergers, the hyper-capitalist conglomerization, the firings of so many of the best editors, the shrinkage of lists, the buyouts, the disappearance of imprints, the concentration of resources on the big books, the Hollywood promotional and deal-making mentality, the decline of textual editing, the cutbacks of editorial staff, the erosion of backlists, the growing influence of business over editorial decisions, the encroachment of a mass-market orientation, [and] the consignment of so-called midlist authors to oblivion, regardless of quality. (12C)

Twenty-nine books published by Random House (listed in 1993 by The New York Times as very notable works), the article continues, lost approximately \$700,000 collectively and were viable only because they could be supported by two best sellers produced by the publishing house.

This article vividly exhibits that audiences for serious works are narrowing at a rapid rate. It underlines the fact that specific markets have had a tremendous impact on sales and profits for large publishing houses and reveals the way that these factors are shaping publishing demands.

In an era of increasing fragmentation of society and interests, university presses can no longer afford to publish a work which, because of its esoteric nature and its lack of appeal to broad sectors of the market, may earn little financial reward. Paul Parsons, writing for Scholarly Publishing, noted in 1991 that "Just as scholars now specialize, so do university presses" (46). University presses, faced now with meshing production costs with audience demand, tend to publish well-known names, appealing to name identification to the exclusion of lesser known scholars. Because

they can no longer afford the financial risks involved in publishing unknown authors, many university presses are excluding from the dialogical context the very voices which may have produced, or may be producing, the best and most significant scholarship.

Paradoxically, as universities continue in what Korshin terms "mandarinization" of their policies which affect tenure of new professionals, they also apply more pressure on these same individuals to publish research (70). Increasingly, universities demand more credentials from incoming professionals who are hopeful of obtaining tenured faculty positions. Paul J. Korshin has observed that "as pressure grows on young scholars to publish something—anything—in book form, but with ever less time to do original research, it is fair to predict that the monographs . . . will be even more specialized than those that academic publishers have been seeing in recent years" (70). Works by such unknown academics and works so specialized have little hope of acceptance for publication by university presses. Even the most original research, if produced by an unknown, may go unpublished and unknown to the academic community.

Scholars who continue to produce important research are confronted with finding a means to create a dialogical context with their specific audiences through other than traditional channels. As illustrated in another Dallas Morning News report, some academics have chosen to do this by customizing texts through copy services (Bleiberg). But for many other scholars, self-publishing, a process in which

a dialogical context is produced, is the only viable alternative to the university press.² Without the means to create this dialogical context, many scholars cannot hope to be empowered and cannot hope to participate in the exchange of signs.

The self-publishing field is a relatively new alternative for scholars. It is a process that requires the adaptation of rhetorical practices to technological innovations; it insists that scholars understand the rhetorical and metaphorical nature of visually coded texts (Hampton 348); it asserts that scholars understand, as Plato and Aristotle understood, that rhetoric is a form of management (Heckelman 28-29). Because self-publishing is a relatively new field, little scholarship exists which has attempted to investigate the way in which this new field adapts and extends either ancient rhetorical principles or modern theories.

The study undertaken herein examines and codifies the way in which rhetorical practices (invention, arrangement, style, delivery, and memory) are applied to the technological processes used in self-publishing of scholarly works. As such, it has its bases in the works of ancient philosophers and rhetoricians, those "first media buffs" (Ong 1972, viii), as well as in works of modern theorists. As this work will reveal, scholarly self-publishing expands on the rhetorical principles of the ancients and on the theories of such contemporary thinkers as Michel Foucault, Friedrich Nietzsche,

² Within the last few years, George Washington University, Washington, D. C., has begun holding summer seminars in publishing. Their summer program for 1994 offered such courses as Introduction to Desktop Publishing, Printing and the Graphic Arts, Graphic Design from Concept to Mechanicals, Design Concepts for Desktop Publishers, and others.

and Mikhail Bakhtin. And though it extrapolates from the works and theories of all these, it finds its most powerful stimulus in Bakhtin's dialogical theory (for Bakhtin, dialogue was everything) which insists on the primacy of dialogical context as sign.

Signs and the Ancients

Ancient thinkers seem also to have perceived the importance of dialogical context and sign. Among the ancients, for example, Plato appears to have anticipated to some extent the semiotic implications of language, as did Aristotle, who in his later work De Interpretatione made connections between verbal utterances and symbols (25; ch. 1). Renato Barilli has explained that "Dialectic, on which Plato insists so much, is above all an analytic endeavor to break down discourses in order to find their primary elements, and to identify within them a few essential categories . . . nouns are images, copies of things . . . they have the purely instrumental role of a reminder. . . . This means the divorce between words and things" (7). Words, for Plato, were signs for things with which they had an assumed association.

Plato also seems to have perceived of dialogue in somewhat the same way it has been perceived by both Friedrich Nietzsche and Mikhail Bakhtin. He saw dialectic as central to the discovery of truth (or knowledge). Dialectic, a philosophical process in which truth is pursued logically through question and answer (Matsen, Rollinson, Sousa 107), cannot occur in other than a dialogical context. In order for this context to occur, there must be an encoder whose message (with

implication of meaning for the receiver) is received by a decoder who, in turn, makes an inference (regarding this message), controlled here somewhat by Plato, which is interpreted by a specific community. Almost certainly Plato did not conceive of the dialogical process as it has been perceived by later nineteenth- and twentieth-century theorists. Yet, in these ancient dialogical works lay the seeds for theories which would be formulated centuries later.

Significantly, works such as Gorgias and Phaedrus produce textual signs in which Plato's philosophical ideals might best be showcased. Without the dialectic of pure dialogue, Plato, like the scholarly self-publisher, would have been unable to relate his convictions through this signifying exchange. Without the ability to create an environment in which an encoder's message was received by a decoder and a community, Plato could not have produced a context in which his thought could be received by later communities. What scholars know of Plato's thought, if they had received it at all, would have been considerably different.

The textual sign and its creation is extremely important for scholars who would establish a dialogical environment with their specialized audiences. For as several modern rhetoricians have theorized, without the dialogical process revealed through a "text" there would be no forum, no communication, and no meaning. The twentieth-century theorist, Mikhail Bakhtin, who defined "text" as any "coherent complex of signs," argued that if there was no text, there was no object of thought, either (1986, 103).

It should be noted that elegant and artistic as Plato's works (mentioned above) are, they use a dialogical process in which an outcome has been decided previously. The dialogical process in Plato's work is one that limits, indeed, eliminates divergent reciprocity on the part of the participant. Lacking in dynamics as Plato's process may be, however, it manages nonetheless to create the forum (or textual sign) through which Plato's ideas may be heard, the forum in which meaning and communication can occur. It is important for a study that will be based on the dialogical theory of Mikhail Bakhtin that we note the significance of pure dialogue here as a means of creating a text or sign for encoders, decoders, and interpreters. Yet there is another aspect of these works, too, that is important.

In comparison with a work such as Aristotle's Rhetoric, which gives practical instruction in the art of rhetoric, Plato's work may be seen as somewhat static. For though his works may instruct by example, they do not explicitly instruct others in the art or creation of the dialogical context. For this study, a work which marries theory with *praxis*, for instance, the Rhetoric of Aristotle, with its great practical appeal, may be of greater importance.

Aristotle seems to have perceived the dialogical context as a means for instructing others in the practical management of rhetorical principles. Though both Plato's and Aristotle's works have continued to be studied and reinterpreted by contemporary communities, Aristotle's work, a practical guide for students of rhetoric, lends greater credence to this study than does the work of Plato.

Lane Cooper defines Aristotle's Rhetoric as "a practical psychology and [one that] is the most helpful book extant for writers of prose and for speakers of every sort" (Introduction, xvii). Aristotle's Rhetoric, a treatise of major significance, serves as an example and a model on which to base a work intended to be somewhat similar in scope and intent. In this work, Aristotle synthesized (as will the study undertaken herein) knowledge gleaned from earlier rhetoricians' oral and written works, codifying, as far as can be known, the first manual of rhetorical instruction.

Important as the works of these ancient rhetoricians are to this study, theories of several modern thinkers also serve as bases on which to build. Their theories on language, sign, and discourse underline the significance of the creation of a self-publishing document and the management of this rhetorical process. Their insistence on the practical applications of rhetoric, along with their insistence on broadening rhetoric's definition, lend additional substance to a work which investigates rhetorical processes in scholarly self-publishing.

Signs and the Moderns

In the Introduction to Rhetoric in Transition, 1980, for example, Eugene E. White acknowledges Carroll C. Arnold's efforts toward a goal of the "improvement of rhetoric as a practical tool of society" (1). White, like Arnold, realizes that traditional means for defining rhetoric are no longer valid in the twentieth century and that rhetoric's scope should be expanded to give practical assistance in a broad

spectrum of human endeavor (1).

Other twentieth-century thinkers have also commented upon the current, all-encompassing character of rhetoric. Some, like Walter J. Ong, who labels ancient rhetoricians the "first media buffs," have seen rhetoric as having had this kind of application almost from its inception (1972, viii).

Ong places the occurrence of this phenomena as happening much earlier than the twentieth century. He reminds his readers that Cicero encouraged orators to know all that could be known (vii). Ong also points out that rhetoric "ultimately took all knowledge as its province" (vii). Ong seems to view rhetorical tradition as a history, one in which the cultural phenomena illustrated in humanity's ability to adapt knowledge structures is shown in the technological advances of a particular age. As a cultural reflection, rhetorical tradition, he believes, allows a culture to understand the "significance of shifts in media and in modes of knowledge storage and retrieval which have both resulted from and produced our present technological age" (viii).

That rhetoric's scope has evolved into one which encompasses almost every aspect of discourse and knowledge is demonstrated by propositions found in the works of other twentieth-century theorists. Michel Foucault (1926-84), for instance, in a hypothesis very similar to that which Thomas Kuhn formulated in The Structure of Scientific Revolutions (1970), has postulated that interruptions in world thought force new directions in epistemological formation (1972, 4-5). Foucault, like Kuhn, has recognized the error in the assumption that there are stable structures of knowledge.

How these specific formations emerge as viable, acceptable patterns of discourse is what has interested Foucault, who has articulated theories regarding the way that power structures empower some forms of discourse (or epistemological formations), while denying others' feasibility.

These theories, along with those set forth in the works of both Nietzsche and Bakhtin are important as the bases for this study. But it is Bakhtin's work, claimed by Gregory Clark to be the work which perhaps provides "our most comprehensive explanation of the process through which social knowledge is constructed in a cooperative exchange of text" (8), and in particular, Bakhtin's dialogic theory, which lends this study its greatest stimulus. Bakhtin, as Beverly Spears has affirmed, pursued any number of questions regarding "all forms of discourse" (186). "His theories . . . extend the concerns of classical rhetoric," she continues, "in emphasizing the conveying and receiving of message between speaker and hearer(s) in order to obtain (or make possible) response" (186). It is therefore Bakhtin's theory that propels this argument for the scholarly creation of textual sign and scholarly control over linguistic message.

Theory and Friedrich Nietzsche

Prior to looking at Bakhtin's work, it might be instructive to examine Friedrich Nietzsche's theories regarding language (because of their influence on Bakhtin). A nineteenth-century theorist, Nietzsche understood all language to be

metaphorical. He felt that without its re-creation within dialogue (or text) for and in the context of audience, language had no meaning. Nietzsche postulated that it was only by substituting language for the inner self that the human being was brought forward for examination and for interrelation with others. If the metaphor of language could not be revealed to others through dialogue (or text), then the originator of that language (and the inner being of that originator) was effectively silenced and excluded from participation in the concept of a reality which was created within dialogue (or text). Humans, Nietzsche asserts, could conceive of themselves and others only through the metaphor of language, could construct the illusion of knowledge only through the metaphor of language, and could relate this knowledge only through the construction of and participation in dialogue (1979, 9, 16, 25-26, 29).

Theory and Mikhail Bakhtin

The Russian theorist Mikhail Bakhtin, working in the twentieth century, also understood dialogue as central to the creation of meaning. He, too, understood language to be metaphorical and semiotic. Bakhtin maintained that the ideological chain (of sign and meaning, and therefore, the rhetoric of dialogue and communication) "stretches from individual consciousness to individual consciousness,

connecting them together" (Vološinov 11).³ Bakhtin felt that "Signs emerge . . . only in the process of interaction between one individual consciousness and another" (11). It was here, within this dialogue, that meaning and communication took place. Bakhtin underlined this concept of dialogue by insisting that signs arose only in "interindividual territory" and so could exist only when individuals interacted in groups which were "organized socially" (12). In other words, Bakhtin, like Nietzsche, perceived meaning as occurring only in the creation of dialogical contexts, contexts which could be constructed only through the interaction of individuals within specific communities, communities being understood in this context as specific groups which, consciously or unconsciously, subscribed to mutual interpretations of signs.

Theory and Dialogue

Dialogue, as indicated by both Nietzsche and Bakhtin, may be understood to be a rhetorical construct which allows for the creation of and participation in a given reality. An individual who has the ability to somehow create this dialogical thread (in a textual sign, for instance) becomes the producer of messages embedded with meaning for a reader or listener. (Words, for Bakhtin, are signs.) The reader or listener decodes the implication and makes an inference which, in turn, is interpreted by a given community. The establishment of a dialogical context is essential for

³ Though the author of this work is shown as Vološinov, Bahktin, who rarely took credit for any of his own writing, is known to be the actual author.

anyone wishing to participate in the creation of meaning and knowledge within a specific community.

Conclusion

In The Art of Discourse, Henry N. Day defined rhetoric as the art of discourse (1; ch. 1). Day, who was writing in nineteenth century, was referring to the act of oratory, though his rhetorical argument was couched in the printed word. In this argument, he also stated that discourse "as the communication of thought, implies at once and necessarily, in its primary and complete signification, a speaker and a hearer; — a speaker, who in speaking seeks to produce a certain effect in the mind of the hearer" (26; ch. 4). Communication, of any kind, must of necessity have an originator of a message and an interceptor who receives this message. In order for the most basic kinds of communication between human beings to take place, there must be a system which admits this exchange. If the sender is to produce a "certain effect in the mind of the hearer," then the speaker must be knowledgeable of all facets which now comprise the communication process. For communication, as Day implies and as ancient rhetoricians knew, is more complex than merely sending and receiving a message. As this study will demonstrate, communication, which cannot take place without the sign of the text, must meld the various dialogical possibilities and technological processes that are now available to the scholar. Rhetoricians and scholars must acknowledge the role of technology, available to writers through the

technology of desktop publishing (and electronically produced manuscripts) the impact of visual rhetoric (which goes far beyond ornament), as well as those of the linguistic sign.

Like Plato, the modern scholar must have the means to create a dialogical context, a text (sign), in order to create meaning and communication. With both societal conditions and technology changing the face of publishing, scholars can no longer expect to publish through channels which were once readily available to them. The technology of electronic media, specifically desktop publishing, offers them the alternative which not only allows the creation of textual sign but which also offers, through its almost limitless capabilities, complete ownership and control of the textual sign.

CHAPTER 2

VISUAL FORM AND VERBAL FUNCTION

Form follows function.—Horace Greenough and Louis Sullivan

Horace Greenough, a nineteenth-century American neo-classical sculptor, attempted in his writings, as did Sir Joshua Reynolds in his, to outline an early theory of aesthetics. His roughly defined concept of form and function influenced Louis Sullivan, a later nineteenth-century architect of the Chicago School, whose concepts were further refinements of Greenough's.

Similar to rhetoricians of both the past and the day in which he was working, Sullivan recognized that the most effective design (or form) of any work was dictated by its purpose (or function). His tenets of aesthetics insisted that form follow function, that a building's design express its structure, materials, and in particular, its anticipated use. His ideas, considered innovative by the nineteenth-century architectural community, were actually little more than adaptations of the rhetorical principles established by classical rhetoricians.

From its beginnings to the close of the twentieth century, rhetoric has taught consistently that purpose should decree the form of any discourse—that form should follow function. Aristotle's Rhetoric, for example, identified three types of oration and outlined the purpose of each. These types were deliberative, epideictic, and

forensic. Describing the aim of deliberative speaking, Aristotle wrote that it was "concerned with those things upon which advice is feasible" (20; bk. 1, chs. 3-4). Epideictic rhetoric's purpose, he continued, was for praise or blame (50; bk. 1, ch. 9), while that of forensic was for accusation and defense (55; bk. 1, ch. 10).

Audience also figured prominently in Aristotle's teachings. He insisted that rhetors know their audiences and advised rhetors to adjust their discourses be ordered to take into account the ages, backgrounds, and emotional and psychological factors which motivated the people whom they would be addressing (90-141; bk. 2, chs. 1-17).

The Greco-Roman rhetorician, Cicero, encouraged orators to manage their discourses. He insisted that orators arrange works in an orderly fashion (form following function), that they be cognizant of their arguments' weight and balance and that they be mindful of style and charm. He suggested that orators guard their creations in memory and that they be watchful of the way in which these orations were delivered (97-100; bk. 1, ch. 31).

Quintilian, a Latin rhetorician, identified teaching, pleasing, and moving as the aims of discourse (197-99; bk. 8, Preface), though these had already been enumerated earlier in Rhetorica ad Herennium (5; bk. 1, chs. 1-2). All discourse, for Quintilian, fell into these three broad categories.

Most rhetoricians also spoke of style and its correlation with discourse aims (Aristotle 182; bk. 3, ch. 1; Cicero 255; bk. 3, ch. 55; Quintilian I: 117; bk. 3, ch.

5; Bacon 14-16). The author of Rhetoria ad Herennium distinguished three styles: high, middle, and low. Each of these had the specific purpose of moving, delighting, or teaching a particular audience (253; bk. 4, chs. 10-11). These same styles were echoed later by Cicero, who connected high style with persuasion, middle style with entertainment, and low style with instruction (255; bk. 3, ch. 55). This division of high, middle and low styles was also adopted by Quintilian (I: 197-99; bk. 8, Preface), who seems to have given them a somewhat different emphasis.

St. Augustine, the theologian of the early Christian era, accepted the levels of style which had been distinguished in Cicero's works. Like Cicero, he divided orations (of primarily sermonic intent) into levels of style and associated these forms with generally religious functions. Each style (or form) had a particular function within its discrete realm (143; bk. 4, ch. 17).

By AD 1000, a specific genre, *ars dictaminis*, or art of letter writing, had emerged in rhetorical vision, though letter writing had been important in Greek culture, as well. Alberic, drawing on Cicero's work, created two treatises dealing with the art of letter writing. These treatises are, as Patricia Bizzell and Bruce Herzberg point out, seminal works (429). They bear mention here, because they dictated proper form and order for letter writing (429).

In the Renaissance, there developed what can almost be described as a frenzy of concern with style. Style became the subject of a vast number of textbooks and treatises which did little more than catalogue tropes and figures. The accelerated

elaboration on and of style ceased only with the emergence of science and a scientific community which demanded a plain, unadorned style that was compatible with its scientific subject matter (Dragga 81; Bacon 14-16).

Delivery, or the way in which a work is presented (in this dissertation, the way in which the survey is presented), was another significant factor influencing reception of a given work. Throughout rhetorical history, delivery's stock has vacillated. In some eras it has been popular and in others almost totally ignored. It enjoyed its greatest eminence, perhaps, in the eighteenth century with the rise of the elocutionary movement. When the elocutionary movement fell into disfavor in the nineteenth century, delivery's popularity fell from favor, too. Current interest in delivery has been fostered by such rhetoricians as William E. Tanner, whose "delivery, Delivery, DELIVERY" in Retrospectives and Prospectives (Denton: Texas Woman's UP, 1978. 23-29) is an early defender of delivery's importance.

The applications of delivery to visual considerations in printed discourse, too, recognized by such theorists as Rosemary E. Hampton and Charles Kostelnick, have aided delivery's reemergence as a vital rhetorical force. Both Hampton and Kostelnick have written articles which give credence to this reinterpretation of delivery. Both have made substantial contributions to the study of visual rhetoric.

In her article "The Rhetorical and Metaphorical Nature of Graphics and Visual Schemata," Hampton has elaborated on the present-day technological nature of delivery (347-56). She has advocated instructing students in visual as well as in

verbal symbols, observing that

Outside the composition classroom the student's world has become a world of graphics and visual schemata interacting with written and spoken text. Yet inside the composition classroom students have not been taught how to become effective composers and critical thinkers in this interaction. (347)

Hampton's work, and others like it, are changing the traditional perceptions of delivery and are ensuring that it will be readapted to incorporate visual codings available to scholarly self-publishers (and others) through the technology of desktop publishing.

Charles Kostelnick is also an avid promoter of the idea of visual rhetoric and has written a number of influential articles which address this subject. Kostelnick has based his theories, in part, on the works of art scholars such as Rudolf Arnheim, whose benchmark works on vision and perception include Visual Thinking (Berkeley: U of California P, 1969). Kostelnick has recognized that all people are influenced by subtle variations contained within visual codings in printed messages. His "Visual Rhetoric: A Reader-Oriented Approach to Graphics and Design" has attempted to provide readers with a model for visual communication (77-88). Kostelnick is cognizant that such seemingly unimportant elements of a communication, type style and size, for instance, influence the perceptions of a reader (a decoder) (77). He seems to understand that a decoder sees a printed message well before actually reading it.

The survey (shown below) which forms a part of this study is a rhetorical

Personal information is here. To protect individuals, we have omitted this page. Pagination may be different as a result.

problems confronting first-time publishers. Because of your experience, your answers will be invaluable in assisting others who, at this time, will find few relevant resources.

Knowing that your time is valuable, I have attempted to create a Survey that is easily answered. Almost all questions require circled responses only. A few ask that you give more extensive responses. Though this is optional, a few phrases or sentences may convey some of the most significant information. Some questions may not be applicable to your particular area of expertise; skip these, please. If I have overlooked other areas, please feel free to pencil them in on the back of the form, where there is also space for any comments you might wish to make.

Though it is not necessary that you give your name on the Survey, I would like to have this if you will allow follow-up calls. I will also need it if you wish to be acknowledged in the Preface of a dissertation. For acknowledgment, please print your name and the name of your institution exactly as you wish them to appear. If I may also call you, please note this on the Survey. To participate anonymously, please leave the area indicating name and address blank.

Those who agree to participate are also asked to sign and return the attached consent form. This form is simply a statement that acknowledges that I have offered to answer any questions which you might have for me.

Participation in the study is voluntary; refusal to participate will involve no penalty or loss in any way. You may discontinue participation at any time during the study and will suffer no loss or penalty. Information obtained through this study will not be retained except through statistical data and synthesis.

I hope that you will accept this invitation; your participation will make a further contribution to the discipline. Should you decide otherwise, I appreciate the time you have already given in reading this letter.

I look forward to hearing from you and to working with you.

Sincerely,

Jackie MacLelland

Fig. 2.1 Letter for Experienced Authors, Editors, Reviewers, and Publishers

Personal information is here. To protect individuals, we have omitted this page. Pagination may be different as a result.

Publication Author Other _____

3. Who determines the design and layout of the publication(s)? This includes font style and size for text, headings, tables, illustrations, as well as page layout, and cover/back design.

Professional Designer(s) University Art Department

University Computer Lab Other _____

4. Who makes final decisions on all art and design work?

Graphic Artist Graphic Designer

Art Director Editor Other _____

5. What criteria are used in organizing materials for publication, once all selections have been made?

Chronology Theme Other _____

6. Please explain briefly why this process was used.

7. If your publication(s) includes images, what method(s) is used to reproduce these? (If a scanner was used, please note the brand name.)

Scanner (_____) Half-Tones Line Prints Other _____

8. How is your publication produced?

Desktop Publishing: Ventura; PageMaker; Other _____

Computer/Paste Up Cold Type Other _____

9. How does your printer accept your information?

Electronically On Disk Camera-Ready Copy

Other _____

10. How are manuscripts accepted for you publication?

Hardcopy only Disk Electronically

Other _____

11. If your publication specifies that manuscripts be submitted in a particular word-processing program, please identify this program.

WordPerfect Wordstar Microsoft Word

Other _____

12. If your publication requires submissions in a particular format, please note the format briefly.

13. Do you limit or restrict a writer's use of charts and graphs?

Yes No

14. Have you used scanners for text?

Yes No

15. If problems were encountered, please explain these and the manner in which you solved them.

16. In what way do you manage both editorial and production control?

Committee Individual Other _____

17. How flexible have you been on stated deadlines?

Inflexible Flexible Other _____

18. If you publish materials received for publication that have already been published elsewhere, how do you handle copyrights?

User's Responsibility Author's Responsibility Publisher's Responsibility

Other _____

19. Please describe the greatest problem you feel that you have encountered in scholarly publishing and the way in which you solved it.

20. Please describe the greatest success (or most innovative idea) that you feel you have had in scholarly publishing.

21. Please describe anything(s) (in the publishing process) that you would never do again.

22. Please describe anything(s) that you would definitely do again in the publishing

Personal information is here. To protect individuals, we have omitted this page. Pagination may be different as a result.

The Survey and Its Audience

The letter (Figure 2.1) which accompanied the survey invited participation from almost forty professionals, each with experience in scholarly editing, publishing, or reviewing. These professionals were associated primarily with academic communities: colleges or universities. These were individuals who in addition to functioning as authors, editors, reviewers, or publishers, also maintained full teaching and committee schedules. The survey's design had to take the audience's limited time into consideration, so it was necessary to structure the survey in such a way that it could be read quickly and give participants the options of either answering briefly or with much longer, more in-depth answers.

Its function was to glean information from this academic audience. Such an occurrence could not possibly come about if the survey were too lengthy, too time consuming, or too complex. Its design had to be one in which ease of response was quickly recognized.

As the title indicates, the survey attempted to target an audience with a great deal of experience in writing, editing, reviewing, and publishing. These individuals were identified in part through a computer search delineating those regional (with one exception) publications which fit within the scope of research parameters. These parameters required that individuals invited to participate be involved in the publishing of either anthologies, monographs, or serials and that these individuals be closely associated with all aspects of seeing the published piece through its entire

process.

The design followed the admonitions and examples of rhetoricians, from the ancients to those of twentieth-century theorists and artists. It acknowledged the warnings of Roger C. Parker, in particular, who cautions that "A well-designed [sic] response device is easy to fill out" (380). Its design was based on form following function and on management of materials. Because of its functions, which were (1) to arrest the reader's attention, (2) to be read, and (3) to gather information, it could not ignore the complaints that instruments such as this (i.e., surveys and questionnaires) were notorious for receiving little response. David Browne's Welcome to Desktop Publishing, which has defined a careful procedure for formulating response sheets, suggests that such forms are fact sheets, successful only if they are easy to read (301). Frequently, surveys and questionnaires have been criticized for being too time consuming, irrelevant, esoteric, or lengthy. Customarily, these forms have received the least attention from the very groups of people whose input has been of utmost importance to the forms' creators. Because it is always vital that a survey be read and responded to by those to whom it is sent, this survey's design was planned to encourage recipient participation.

Design and the Survey

To be effective in eliciting responses, forms of discourse such as questionnaires and surveys, like other rhetorical instruments, need to adhere to the principles of

rhetorical design. They should address the entire canon of invention, arrangement, style, memory, and delivery, emphasizing, in particular, arrangement, style, and delivery.

The creation of an effective survey or questionnaire design has much in common with the creation of a visual work of art. To be successful, both need to express solutions to problems that are inherent in formulating their messages. A successful work of visual art answers such questions as how to create a work which evokes the desired response in a viewer. The art work solves this problem through its media, size, style, composition, and arrangement. A successful work of visual art incorporates visual codes that evoke responses in viewers, drawing them into participation—whether positively or negatively—with the art piece. If successful, both the art work's and the survey's designs provoke responses from those whose lives they touch.

Like design in a visual work of art which hopes to elicit a collaborative effort from its viewers, the design in this survey needed to exhibit qualities which would attract the attention and participation of recipients and encourage them to become involved with the material addressed in the form. The objective of the survey design was to encourage recipients to become interested in reading and answering the form's questions and in returning the form to its creator.

The survey, entitled "Survey for Experienced Authors, Editors, Reviewers, and Publishers," acknowledged the expertise of survey recipients. At the same time, its

persuasive intent enlisted their participation in a study which considered various aspects of scholarly publishing, an area which would have been of much personal interest to most of these respondents.

Though the survey included some visual enhancement, these were subtle and were not immediately obvious. The survey was a seemingly straightforward verbal text, one which did not suggest or readily lend itself to visual orientation. Indeed, a survey is a discourse which would be defined by Sam Dragga and Gwendolyn Gong as a primarily verbal text (56).

Dragga and Gong are theorists who, like the theorists mentioned above, have also contributed to the field of visual rhetoric. These two practitioners have devised a chart which assists editors and writers in evaluating orientation of texts. In their scheme, texts are defined as either visually or verbally oriented according to a rating system. Their chart, reproduced below, outlines this system, though their accompanying explanation is also valuable. According to Dragga and Gong, "After rating each factor on a scale of 1-5, the writer or editor figures the score for all seven factors; the lowest possible score is 7, and the highest possible score is 25. The higher the score, the more visually oriented the text" (56). These two theorists give the following explanatory interpretation of scores used in their verbal-visual survey:

29-35 primarily visual, using charts and graphs, symbols, diagrams, photographs, color, a variety of type sizes, a minimum of straight text

- 22-28 visual/verbal, using charts and graphs, diagrams, photographs, color, type in various sizes to distinguish blocks of information, an equal or lesser amount of text
- 15-21 verbal/visual, using more tables than figures, some color, type in various sizes to distinguish blocks of information, an equal or greater amount of text
- 7-14 primarily verbal, possibly using some tables, possibly some type in various sizes to distinguish blocks of information, little or no color, most if not all straight text. (56)

Fig. 2.3. Chart for Measuring Verbal or Visual Dominance. Source: Sam Dragga and Gwendolyn Gong, Editing: The Design of Rhetoric. Amityville: Baywood, 1989.

The Dragga and Gong chart fails to take into account visual cues such as white space, borders, justification, and visual qualities of balance created by composed areas of text (areas of text used in blocked units to assist in visually balancing a document), and margins, all important but subtle, visual factors. But even lacking these considerations, the chart is somewhat helpful in pinpointing specific visual elements which might be used to enhance orientation of a given text.

Visual Consideration and the Survey's Design

To capture survey recipients' attention and encourage them to read enough of the survey to become interested, the title was centered and was capitalized entirely. The title (set in 12 point Times Roman type style), being considerably larger than the type used for the survey's text, was planned to arrest decoders' attention. Its wording, as

well as the visual heightening of the title, emphasized that it was an instrument designed for professionals whose experience merited acknowledgement, attention, and solicitation.

Equally important was the white space which surrounded the title. White space (space which is left open, without text or image) has been called "one of the most undervalued tools of graphic design" (Parker 89). Parker claims that "White space provides contrast, as well as a resting point for reader's eyes" (89). He illustrates that white space may take many forms (89-90). Parker mentions that a sink, a band of white space at the top of each page, was also a way to visually enliven a document (91).

The researcher's name and address were lined up below and to the left of the white space which surrounded the title. Such an alignment created an unobstructed area of white space below and to the right of the title, opening up the document and creating the illusion of more space than would ordinarily be expected between the title and the body of the survey. Open space was also left between the researcher's information and the body of the text. An abundance of white space contributed to the clean, uncluttered impression which the survey was intended to evoke. White space also bordered the document in justified left and right margins which were maintained throughout the form. The clean, open, orderly look invited the participation of survey recipients, because it signified that it was a document that they could easily enter, respond to, and easily exit.

Below the white space that separated the researcher's name from the body of the form, was an area for participants' names and addresses. The survey (accompanied by the letter that requested participation and that listed instructions; the letter [Figure 2.1] is also reproduced above) offered participants options. They could provide their names or not. They could list phone numbers, or by leaving this area blank, they could signify that they did not invite the researcher's follow-up calls.

Browne asserts that "White space is the counter-balance to powerful graphics and [is] an imposing visual force if used correctly" (167). The use of open areas of white space within the survey served to lend balance to the overall design. For instance, the area below the title is actually divided into two separate units. One side contains the researcher's name, which is aligned against the left margin. The other side contains only white space, but this white space lends balance and cohesion to the left hand unit. Balance could have also been obtained by centering the unit containing the researcher's name, but the visual effects would have been less satisfactory.

Uniformity and balance were also maintained in the survey by spacing which created and divided units that made up the multiple choice items. Numbered items divided and organized the material; this contributed to the feeling of balanced text upon the page.

Visual heightening in the form of bold type was used to set off instructions which were embedded at the text's beginning. Bold type captured the visual attention of decoders. Isolated from surrounding type, this type stood out in the decoder's field

of vision. Used as it was in these instructions, heightening was intended to arrest decoders' attention and lead them into the text.

Kerning refers to space between pairs of letters. Kerning is another visual consideration which carries significant rhetorical implications. Ignored, it can alter a message, because it can change the entire structure and meaning of a word (this phenomenon is explained and illustrated in Chapter 4.). It becomes more critical as type size is increased. Ordinarily kerning is controlled automatically, but here it was adjusted and customized for the survey's title. Customized kerning was essential because when particular pairs of letters are kerned too closely they typically are misread, creating confusion with a decoder's reception of a given message. Kerning's idiosyncrasies are defined in Chapter 4.

In "Seeing the Text," Stephen A. Bernhardt has identified specific units that comprise an expository text. These units, according to Bernhardt, allow the encoder to control the text rhetorically. He asserts:

In a non-visually informative expository text, rhetorical control is typically exercised through the familiar strategies of essay composition. Introduction/body/conclusion partitioning is frequently in evidence, with each section performing predictable functions. Topics are introduced and broken down in the initial section. . . . Paragraph-to-paragraph movement is often facilitated by transitional links to show logical connections. (68)

Though the survey was not an expository text, its design embraced many of the qualities outlined above by Bernhardt. Being a verbally oriented text (as defined by Dragga and Gong), the survey's control was exercised in much the same way as that

of an essay. Its specific units included introductory material (instructions), body (questions), and conclusion (mailing information).

Participants were encouraged in the accompanying letter to use pen or pencil (to relieve them of the tedious burden of struggling with aligning the survey in either a typewriter or a printer) in order to keep expended time and effort to a minimum. The design also had another objective: to solicit participant assistance in a more lengthy manner, one in which they voluntarily wrote informative descriptions of both the good and bad experiences they had encountered in their professional capacities of authors, editors, reviewers, and publishers.

Decoder Response

Because codification of rhetorical practices depended to some extent on participants' responses, the return of these surveys was of extreme importance. Almost half of the surveys that were sent to the targeted audience were returned. Recipients not only answered questions, but they also made comments regarding their experiences as professionals publishing works by other professionals.

Respondents to the survey indicated the following:

1. That works were chosen for their publications most often by either blind review or editor selection. The next most common means of selection was that of a committee. According to respondents, the combination of editor and board/committee decision was the method used least of all.

2. Most participants were associated with publications. Those responding to this survey said that their publications held the copyright to materials which they published. Universities which published for professionals acknowledged that they, too, maintained copyright for works published under their hand. Copyright, most noted, was ultimately returned to the author by both sets of entities.
3. Design and layout were reported as having been managed almost exclusively by the editor. Those publications which were designed and laid out by editors far out numbered those designed by professional designers and university presses.
4. Final decisions on art and design work were made by the editor of the publication.
5. Though arrangement of materials followed the patterns of chronology and theme, respondents reported other, more innovative patterns. Several editors replied that though they customarily followed the patterns of either chronology or theme, they also liked to cluster works. Others wrote that their arrangements were matters of whim (according to pieces accepted), balance (pertaining to length, readability, and audience appeal), or had to do with the strength of a particular article, with some editors tending to place stronger articles at the front of their publications. Strong articles placed at the front gained readers' interest and provided a lead-in into the entire work. One very innovative editor wrote of using an arrangement system which alternated between groups of general and groups of theme-oriented pieces.

6. Editors noted that they used these arrangements because of (1) the nature of the works, (2) convenience, (3) the selection of articles, and (4) the possibility for publishing manuscripts in as timely a manner as possible. With information changing in as rapid a manner as it does at present, many scholarly manuscripts are rendered obsolete as they await publication by those commercial and university presses which first publish manuscripts guaranteed to bring in huge, or even moderate, profits.
7. A majority of editors replied that their publications' images were produced using half-tones. Next in popularity were line prints, followed by some reports of the successful use of scanners for images. Two editors required that contributors provide camera-ready images, thus shifting to writers the time-consuming, tedious work involved in producing good, reproducible images.
8. Most publications were produced using Pagemaker. A few reported that they continued to use computers and paste up, but two editors reported the use of sophisticated service bureaus.⁴
9. Printer acceptance of information was equally divided between the acceptance of disk only and the acceptance of hard copy only. Two editors wrote that they required that writers supply both.

⁴Service bureaus provide publishers with complete publishing services. Because these services house high-resolution typesetters, small publishers utilize their services. Publishers who use desktop software to create documents may carry their disks to service bureaus and have their files printed using technology which is capable of printing 1200 or more dots per inch. The cost for this service is nominal, about \$15.00 per page.

10. Editors who required that manuscripts be on hard copy only or on disk only were equally divided. They were followed closely by those who accepted either. Only one publication also accepted manuscripts electronically.
11. The predominant word-processing programs preferred by the editors who answered this survey were (1) Microsoft Word and (2) WordPerfect (for DOS). One editor mentioned the use of Write Now (Macintosh).
12. Some editors required that contributors separate their text files from their table and figure files. Most required that contributors use formats subscribing to either the Modern Language Association convention or those of the Chicago Manual of Style. One asked that manuscripts be submitted double-spaced on white paper. Another asked that contributors double space throughout and observe page limits. Seven editors gave no specifications regarding formats.
- 13 (14 included, too). Almost all editors questioned had tried scanning text and reported unsatisfactory experiences. One editor explained that he had made arrangements to use a scanner, but that on attempting to use it, found that it could read only IBM fonts. A difference in fonts, he wrote, though only slight, caused frequent scrambling of words. Another editor related that pictures were blurred and muddled and that letters such as *m*, *n*, *p*, *y*, and *r* were either misread (by the scanner) or that the scanner could not read the type and so randomly substituted "#" for various letters. Tables, the same editor reported, had not been scanned successfully. Scanners failed to retain tab alignments, which caused texts to

become jumbled and incomprehensible. Another editor had found that scanners introduced many new errors and so were justifiable only as a last resort. A third editor said that it was more trouble to clean up the errors introduced into the text by scanners than it was to ask authors to submit manuscripts in either ASCII or WordPerfect. Even if typescript were clear, as one editor pointed out, errors were sure to be introduced (though the editor also pointed out that errors could be introduced by typists just as readily.). A single editor noted that she still used scanners for text and that, in general, this procedure had been satisfactory.⁵

15. Almost all editors answered that control was managed individually (sometimes with difficulty). Only one used committees, and only one used a board which was made up of three editors.
16. All editors were either flexible or somewhat flexible on deadlines with the exception of two who required that contributors follow deadlines strictly.
17. In the majority of cases, editors who answered this question wrote that when they

⁵In the February 7, 1995 issue of PC Magazine, Alfred Poor explained that the widespread use of Microsoft Windows had given impulse to cheaper but more sophisticated scanners. He declared that the price of color scanners, like that of color printers, had dropped encouragingly within the past few years. In his article, Poor, who had performed research on 16 scanners, reported that the best color scanner was the Hewlett-Packard ScanJet IICx. Performance was rated on image quality, ease of use, features, and price, all of which were found to be outstanding for the Hewlett, whose price was only \$1,000.00. Significantly, the Hewlett packed an imaging wallop of 400- to 800-dots per inch (dpi), and it produced a wide variety of excellent quality scans. According to Poor, the use of scanners had been increasing rapidly. Scanners, in February, 1995 were one of the computer industry's fastest growing markets. Color scanners were in even greater demand (199-201).

published works which had appeared elsewhere, they left the responsibility of copyright concerns to the authors of those specific articles. The next most common answer was that the publication took responsibility for this. One publication required first North American rights and so eliminated this problem completely.

18. This question garnered some very specific answers. One editor wrote of encountering major problems after converting to an electronic system. This problem was solved only through research and "much trial and error." Another editor complained that project editors had been changed between the publishing of related volumes (part of an extended publishing project) and that this had caused gross errors to both texts and figures. Still another editor discussed the problem of keeping subscriptions up, a problem to which a solution had not been found. Obtaining high quality submissions was also a problem reported by many editors. Most had dealt with this through selection and rejection. Many editors mentioned the lack of money with which to produce a publication of merit. One editor candidly explained that the "university's shrinking budget caused me to find another university (and editor) to take over the publication." Another editor found that the day-to-day management of a publication consumed vast amounts of time and energy, a problem which was alleviated somewhat by the help of an intern. One editor had been frustrated by problems such as authors not having compatible software, domestic postal regulations, and even problems with delivery

of mail to foreign countries. Readable manuscripts of good quality which were received on deadline was the problem cited by yet another editor. The editor's solution had been to advertise and to make frequent calls to contributors. One editor lamented the vast amount of time spent editing a single issue of a publication; another had somehow avoided any major problems. Most had solved their problems or were continuing to work on them.

19. The greatest success described by one editor was that "four volumes [of a multi-volume work] are to the printer." The conversion to desktop publishing was the greatest success of another editor, because it saved time, and it gave the editor *more control* (emphasis added) over the message. For another editor, finding the right publishing house had been a boon, while discovering new talent (national and regional) had been the greatest success for yet another editor. The satisfaction of having improved the quality of the publication was of great importance to another editor, an editor who had taken the innovative step of changing peer review to a dialogic/collaborative approach. The editor of yet another publication found the conversion to desktop publication to be one which saved money and improved the quality and image of the publication. The popularization of a particular form of scholarly research was cited as the greatest success of the last editor who answered this question.
20. In describing things which they would never do again, respondents answered as both authors and editors. One noted that after spending time and effort to

participate in two international anthologies, these were never published. Because of this experience, this author/editor had decided to abstain from participation in other such ventures unless having direct access to the publisher. Another editor, evidently having published a multi-volume work, wrote that "an announcement was sent out in lieu of an issue; as a result, the first bound issue of the volume was therefore numbered as no. 2; everyone sent claims for vol. no. 1 which did not exist." The editor discovered that the confusion could have been avoided if the bound issue had been numbered "vols. 1 & 2." One other editor who answered this question regretted transcribing an oral presentation for publication. And the last editor to respond warned of relying too completely on guest editors.

21. Describing what they would do again, editors answered this question in a variety of ways. One had found great satisfaction in being an "independent" and vowed to remain that way. Another wrote that the production of special, double issues containing both established talent and new writers was an idea which would definitely be used again. The control of content and page layout was important to another editor, who commented that this control was obtained through the use options provided by computer layout techniques. The last editor to answer this question had found that sending galley proofs to contributors for proof-reading saved time and energy; the editor planned never to go back to the system used prior to this, one in which the editorial committee proofed the galleys.
22. Eighty percent of all the editors answering this question reported that their

publications were funded by or supplemented by academic institutions. The remainder wrote that they were not funded by academic institutions.

23. Of those editors answering this question, forty percent said that their publications were funded by individual subscription; another ten percent noted that individual subscription supplemented academic funding. Private donations and grants provided funding for the remainder of those reporting.

Although response to the questionnaire was overwhelming, not every editor answered every question. Many answered only those questions which had answers that could be circled and which did not require the writing of even short answers. Some editors were very brief in their written responses, while others wrote (some even typed) long notes explaining their positions in detail. All responses indicated that many authors/editors were concerned with the control of their publications, their texts *and* images, and, of course, their messages. Their responses indicated that scholars intend to remain a part of the dialogical process and that the modifications currently being undergone in the publishing world have already given impetus to changes in the outlook of those who publish for themselves and for other scholars. Though a few respondents indicated that they still used computer and paste up, most had converted to desktop publishing packages and had taken greater control of their publications, control that they do not intend ever to relinquish again. Having control is vital so that those who participate in the dialogical process can adapt rhetorical principles to the dynamic tool of desktop publishing, a tool which meshes the verbal

and visual and allows scholarly authors to control their messages as they have never before been able to control them.

CHAPTER 3

THE DIALOGICAL CONTEXT AND THE RHETORIC OF ORDER

Good order is the foundation of all good things.—Edmund Burke.

In the Education of Henry Adams, the author Henry Adams, states that "Chaos often breeds life, when order breeds habit" (249). Speaking in a time when chaos theory was unknown, Adams intended in this remark to denigrate order because of its perceived quality of tedious repetition and its aptitude for systemically regimenting all endeavors of life. At the same time, he was attempting to extend the concept of chaos (which in his time indicated disorder and confusion) to one which recognized the creative potential inherent in spontaneity. Since his time, science has theorized that there is nothing which does not contain order—even the randomness of chaos (Gleick 22).

Order and the Human Psyche

Order is arrangement or classification; it is the imposition of a perceived structure onto any system. It may be defined as the methodological arrangement or management of materials, states, bodies, and information. Rudolf Arnheim affirms gravity's order in the following way:

Order is a necessary condition for anything the human mind is to understand. Arrangements such as the layout of a city or building, a set of tools, a display of merchandise, the verbal exposition of facts or ideas, or a painting or piece of music are called orderly when an observer or listener can grasp their overall structure and the ramification of the structure in some detail. Order makes it possible to focus on what is alike and what is different, what belongs together and what is segregated. When nothing superfluous is included and nothing indispensable left out, one can understand the interrelation of the whole and its parts, as well as the heirarchic scale of importance and power by which some structural features are dominant, others subordinate. (Entropy 1)

Humanity orders, classifies, and arranges. Eugene E. White writes that "the last step in bringing meaning, order, and predictability" to datum is by cataloguing it (11). Quintilian posited the import of order by pronouncing that "Nature's very existence depends upon order" (I: 178; bk. 7, Preface) and claimed that "oratory without order is like a drifting ship without a pilot or a traveler at night in strange places" (I: 178; bk. 7). Baruch Spinoza, the seventeenth-century Dutch philosopher who also commented on order's magnitude, observed that "when things are in such arrangement [good order] that, being presented to us through our senses, we can readily picture them and thus readily remember them, we say that they are well arranged; if the contrary, we say that they are ill-arranged [sic]" (61). Jeremy Campbell, a twentieth-century observer of human behaviour, has noticed the way in which order is demanded by the human mind. In his opinion, "coherence appeals vastly to the mind, because the mind is so good at imposing coherence on reality" (239). Gerald M. Phillips and Bradley R. Erlwein, who wrote about the orderly

process of rhetorical composition, touched upon the orderly process of human thought, as well (243).

Both culturally and individually, most people crave order. When faced with situations in which they cannot immediately perceive order, they work diligently to inflict it, to compose a system which they can understand, one which they can somehow arrange, sequence, manage, and remember. Those who cannot find or inflict this order feel rudderless, powerless, or even disoriented; they become violent, savage, and void of reason.

Organization is so important to people that they resist almost any threat to it, no matter how insignificant the threat might be (Hoffer 1-5). They structure their societies into tribe-like cities, which in turn are organized into varying layers of authority. People lay these cities out into grid-like blocks, patterns which organize space and separate people's recreational areas from those areas they live or work in. These are ordered patterns which assist them in finding their way through these structured and artificial environments. People arrange their lives around a concept of time, which they parcel into segments.

Organization is such a compelling element in human nature, that many people perceive their entire existences in terms of relationships and understand their world through them. Many people would have difficulty functioning if suddenly they should somehow not be able to pigeonhole items, concepts, and possessions, the "things" in life which people feel must be subjected to arrangement in order to be

comprehensible.

People's need for harmony, balance, symmetry—for order—knows almost no limits. From their food stores, which group canned goods by type and which separate foods by categories, to their cities, which attempt to arrange their environment, to their need to divide people by race or cultural origins, people divide, segregate, and separate; they differentiate, classify, and categorize; they arrange everything within their spheres of influence. Order gives them a sense of security, and it allows them to feel that they have some control over the forces which dictate their lives. Paul Watzlawick has asserted:

All living things depend on adequate information about their environment in order to survive; in fact, the great mathematician Norbert Wiener once suggested that the world 'may be viewed as a myriad of To Whom It May Concern messages.' The exchange of these messages is what we call communication. And when one of the messages is garbled [disordered], leaving the recipient in a state of uncertainty, the result is confusion, which produces emotions ranging all the way from mild bewilderment to acute anxiety. (3)

The need to organize and categorize is witnessed early in humanity's development, and it continues to be evident. As early as about 30,000 BCE in the caves of Lascaux and Vallon-Pont-d'Arc in France and in Alta Mira in Spain, people systematically rendered visual representations of animals—buffalo, bison, horses, and reindeer—which they hunted for food and which they perhaps worshiped. These artworks were probably created by specific members of an organized clan whose society was almost certainly stratified in some way. Art historians have speculated

for years on both the order in which these images were arranged and the reason for their existence, with some feeling that particular kinds of order represented different hunting seasons.

The Neolithic age witnessed the rise of systematically organized societies. During this period people established an organized system of gods, religion, agriculture, and cities. Their society created an organized means of record keeping. A system of writing probably evolved in the Near East as the Mesopotamian culture became more elaborate and stratified (Wren et al. 7). Writing eventually provided them with an ordered method for passing along their cultures, myths, and histories to their descendants.

By the Greek period, the need for balance (or order) was almost paramount. Most Greeks insisted on the existence of an orderliness in which all things related to and were balanced by all other things. For them, man was the measure of all things. Their temples, from the Temple of Hera to the Parthenon, were built according to ratios which adopted their concept of a balanced universe. Both Plato and the Stoics argued that the order in individual organisms depended on the larger, surrounding order, an order due, they felt, to the presence of an intelligent design in the cosmos (Irwin 155).

People's instinctual drive for order may have been the stimulus which first gave impulse to Greek organization of rhetorical education and speeches. Aristotle's Rhetoric may owe its existence to this Greek bent for organization and balance, for

structuring information, buildings, government, and other entities, into manageable, understandable units.

Certainly the Greeks were the first to undertake the systematic organization of communication. They understood that in order for any message to be received in the manner in which its encoder intended, it had to be communicated as effectively as possible. A major element in such an effort, as the Greeks and the later Romans knew, was the efficacious arrangement of those argumentative, informative, illustrative, or persuasive materials which were enlisted by a encoder to sway or inform a decoder.

In classical times, *taxis* (*dispositio* for the Romans) was the term which designated the element of the canon referring to the effective ordering of invented arguments comprising an oration. Some ancients, Aristotle in particular, divided these orations into four parts, a number that was adjusted and adapted by such later rhetoricians as Cicero and Quintilian. By dividing orations into parts, rhetoricians laid the fundamental precepts which dictated that discourse should be divided into clearly defined sections and that each of these sections, though a part of the whole, should have a discrete purpose.

For the Greeks, Aristotle specifically, this ordering of discourse took form in four parts, each of which was common to all speeches. The oration, divided by the introduction, the statement of issues, the arguments, and the conclusion (220; bk. 3, ch. 13), became the model adhered to by those who followed Aristotle. With some

exceptions, rhetoricians adopted or adapted this list. Cicero, for example, identified five parts, and Quintilian identified four, while Ramus deleted items from the list. Over time rhetoricians identified seven parts, listed by twentieth-century theorist Richard A. Lanham as

1. Entrance or Proœmium (*exordium*), which catches audience attention;
2. Narration (*praecognitio* or *narratio*), which presents the facts;
3. Exposition or Definition (*explicatio* or *definitio*), which defines unfamiliar or ambiguous terms, while also opening issues to be proved;
4. Proposition (*partitio*), which clarifies issues and precisely frames what will be proved;
5. Confirmation (*amplificatio*), which presents proofs;
6. Confutation or Refutation (*refutatio* or *reprehensio*), which refutes an opponent's arguments;
7. Conclusion or Epilogue (*peroratio* or *epilogus*), which is a summation and an opportunity for stirring emotions (112).

The order of an argument had practical applications. Ordering an argument (a speech in the early history of rhetoric) into components defined its various parts and rendered each of these more manageable. Ordering allowed the encoder to identify specific parts of an argument, separate these, and arrange materials according to this overall scheme; ordering made it easier for both encoder and decoder to deal with the whole.

Classical precepts, which were formulated for spoken discourse, insisted on

the logical ordering of materials. These same ordering principles have continued to be applicable to written discourse, as well as to that of printed discourse. The careful arrangement of information in a discourse is vital to effective communication and accomplishes a number of rhetorical goals:

1. It helps establish the encoder's *ethos* by signifying that careful planning and forethought have gone into producing the message which is contained within the discourse;
2. It helps establish the encoder's *ethos* by signifying the encoder's organizational abilities;
3. It also signifies good character and ethical conduct on the encoder's behalf, because it guides a decoder through a body of discourse in a logical, orderly way;
4. Following Kenneth Burke's suggestions, organization helps create rhetorical form (Counter-Statement 124-29; Language as Symbol Action 486; Dramatism and Development 16). The decoder's expectations, aroused by the encoder, are fulfilled by the anticipated arrangement of materials;
5. Careful arrangement groups related materials together, thus exemplifying their relationships;
6. Organization can serve to show how text and visuals relate, at the same time indicating their functions;
7. Organization can establish hierarchies, subordinating some elements to others which are deemed worthy of greater attention;

8. Organization can break information down into segments so that individuals might easily manage them.

New information, according to Pierce J. Howard, should be introduced to individuals and groups in limited amounts. He has quoted G. A. Miller, whose 1956 research indicated that only "seven new and previously unassociated bits of information" were as much as most people could manage at one time (qtd. in Howard 230). (An attempt to replicate this research has since lowered the number to five.) Telephone numbers utilize seven digits for this reason. Breaking these seven items down further helps make them even more manageable. A telephone number such as 8815145, for instance, even when speaking the number, is much more difficult to remember than 881-5145. By segmenting information and grouping it into smaller units, the encoder makes it accessible for a decoder who will find it more easily digested.

G. A. Miller's research demonstrates the way in which people can assimilate new information. Arrangement, or the careful ordering of new information, assists people in their grasp of new or difficult knowledge. Order is extremely important in the learning process. Miller insists that

. . . we must recognize the importance of grouping or organizing the input sequence into units or chunks. Since the memory span is a fixed number of chunks, we can increase the number of bits of information that it contains simply by building larger and larger chunks, each chunk containing more information than before. A man just beginning to learn radio-telegraphic code hears each *dit* and *dah* as a separate chunk. Soon he is able to organize these sounds into letters and then

. . . [understand] the letters as chunks. Then the letters organize themselves as words, which are still larger chunks, and he begins to hear whole phrases. (93)

Order functions to deliver information in every situation. Order is vital to understanding those things which at first seem incomprehensible. Imposed in such situations, it clarifies and makes intelligible the bits and pieces of random knowledge and information which bombard people daily. Order, whether called balance; structure; or arrangement, represents the imperative thrust to people's understanding of any given situation or system.

All decoders bring certain expectations to every printed discourse. They have come to expect certain elements within every dialogical context. They expect words to be ordered or arranged in a conventional manner, separated and structured by space that renders a specific word distinguishable from all other words. They expect sentences to be organized using customary methods of punctuation which indicate pauses and full stops, methods in which question marks and exclamation marks indicate, even before the decoders have read the discourse, what tone is being adopted by an encoder. Because language is a dynamic system of signs, decoders expect to find within language's printed counterpart discernible patterns of order which are logically imposed and from which they can glean a clear and understandable message.

Organization and Published Discourse

Dragga and Gong have postulated that "For Aristotle, arrangement can be

likened to *techne*, an art by which one adapts means to a specific end" (45). Cicero, too, as these authors have noted, was extremely concerned with arrangement. Cicero instructed speakers to be concerned with the ordering of their ideas; he advised them to consider ordering in regard to the nature of discourse and of subject matter (e.g., the quality and quantity of evidence about the subject); the nature of the speaker's *ethos* (e.g., personality, moral and philosophical biases); and the nature of the audience (e.g., age, social, political, economic, and educational level, disposition at the time) (45).

The rhetorical situation for Cicero, Dragga and Gong have insisted, dictated the organization of a text: "According to Cicero, rhetors should consider the effect of arrangement holistically, instead of just focusing analytically on individual sections, especially because the wider perspective allows a superior appreciation of the genuine complexity of the discourse" (45).

Order has informed the disciplines of rhetoric and philosophy since its codification by the ancient Greeks. During the times of both the Roman Republic and Empire, rhetorical structures were formulated which influenced their own and later periods. In the medieval period, order, inflicted by the adoption of Christianity in the fourth century BCE, united broad sections of Europe and helped to stratify cultures during the Renaissance. But in the eighteenth century the rage for order dominates particularly:

Intellectual historians have traditionally characterized the Enlightenment

as a time when the rage for order dominated institutions and texts as well as thought. Out of the late-Renaissance crisis of authority had come belief that the world could be known in unprecedented ways. From new empirical science to new epistemology to "neoclassical" art, a new order promised an end to chaos and eternal night. In literature in particular, conscious of its vatic heritage and the power of a Logos it tried to share with revealed religion, the desire to find, or assert, or make order was a powerful motive to creativity. (Canfield and Hunter 13)

Past decades "prized" the eighteenth century's obsession with order for its calm and confident forms and structures, which imitated 'the eighteenth-century mind'" (13).

In the eighteenth century, the order of the universe was perceived as being reflected in the "highly ordered forms" of its literature, which in turn, embodied and instilled social order (13).⁶ This last sentence seems to amplify the point that order has been and is still an essential in the human condition.

Observing order's correspondence with all cultural understanding, Michel Foucault writes:

Order is, at one and the same time, that which is given in things as their inner law, the hidden network that determines the way they confront one another, and also that which has no existence except in the grid created by a glance, an examination, a language; and it is only in the blank spaces of this grid that order manifests itself in depth as though already there, waiting in silence for the moment of its expression.

The fundamental codes of a culture—those governing its language, its schemas of perception, its exchanges, its techniques, its values, the hierarchy of its practices—establish for every man, from the very first, the empirical orders with which he will be dealing and within which he will be at home. (1970, xx)

⁶As an aside, these essays were organized by genre after all introductory material, with Part I Drama, Part II Poetry, and Part III Prose.

Like all the other organic elements of the rhetorical canon, arrangement (or order) throughout time, has been adapted to practical needs. Each new age has brought with it demands to which rhetoric has been forced to conform.

By the nineteenth century, arrangement had been adapted to written discourse. During that period, Alexander Bain formulated a four-mode structure of discourse, a structure whose banner was taken up and carried forward enthusiastically into the next century. Bain's modes: narration; exposition; description; and persuasion, focused on the central unit of the paragraph, and these modes have continued in the late twentieth century to wield a great deal of influence (Dragga and Gong 46), as is evidenced by most composition textbooks.

More recently, Paul Rodgers and Willis Pitkin have presented "discourse structure in terms of discourse stadia . . . or blocs" (46). In doing so, they have attempted to lift discourse theory from the constraints of paragraph theory, though the paragraph is perceived as "a constituent of a larger, more important element in the structure of discourse" (46). According to Rodgers' analysis, ". . . writers develop ideas through accretion (i.e., coordination) or adjunction (i.e., subordination) to form various stadia of discourse consisting of one paragraph or a series of related paragraphs, depending on the nature of the idea being developed" (46). Pitkin's research on discourse structure "asserts that the development and movement of a text is accomplished through a hierarchical arrangement of discourse blocs" (46).

For Dragga and Gong the research of such theorists as Rodgers and Pitkin

represents a great perceptual leap regarding arrangement. Their work, a holistic approach to structure, has allowed for understanding both the macro and microstructures of a text (46).

Much existing information on arrangement addresses the structuring of the limited, single discourse, such as an essay. Because few writers have been interested in or have felt little need for such information in the past, few existing sources give consideration to the arrangement of extended documents or to the arrangement of a collection of discourse pieces which might be included in published works such as anthologies or monographs. Decisions made regarding arrangement of such materials have traditionally been left to publishers or to those editors who have been resourceful enough to gather and manage materials for these kinds of publications.

Most of these editors work independently, so they have a great impact on the arrangement of materials and over the finished product of the published piece. Most are extremely sensitive in assuring that the works represented under their editorship be represented in the most positive of lights. Others, however, work in tandem with publishing houses whose main interests are increasingly geared to the sell of books rather than the reputations of their authors.

In either case, scholars whose writings are included in such works have very little control over how their individual messages are presented. Short of withdrawing their works from consideration for publication, they have almost no control over the contexts in which their messages will be received, with what other works their

individual pieces might be grouped, or under what kinds of headings these might fall.

Contextually misplaced or placed without proper consideration, scholars' messages and their individual intent may lose their impact, be perceived as other than intended, or be totally ignored. Grouped with materials which might be deemed frivolous or inappropriate by the scholarly community at large, scholars' messages may be distorted by contexts and misinterpreted by all decoders.

Organization and Control of Self-Published Discourse

Scholars who choose to self-publish individual discourses have greater control over their messages than do almost any other encoders. Scholarly self-publishers using desktop publishing have the capacity to choose, organize, and manipulate any number of textual and visual elements. Not only are self-publishers able to control the visual enhancement of messages, but they can also organize and manipulate verbal texts. They can control the arrangement—and in turn, the reception of their messages—through the control of an entire published piece.

The arrangement of all discourse begins as encoders consider the formulation of their messages. For those scholars who would seize the opportunity to control an entire published document, the verbal and visual presentation of a work, arrangement is of paramount importance. In searching for the most effective arrangement, scholarly self-publishers would want to bear Cicero's admonition in mind and would want to consider the rhetorical situation (that form follows function). They would also

want to bear in mind that the most traditional means of arranging materials for almost any kind of published discourse have been chronologically, thematically, or spatially. All of these seem somewhat limiting and predictable. Innovative means of arrangement, suggested by experienced editors and authors who responded to the survey (Figure 2.2), are investigated in subsequent pages.

Many who have written recently about arrangement have already adapted this classical element to current technology. Because of technological applications, these encoders perceive arrangement in a much broader light. For them, arrangement extends beyond the organization of verbal text to the organization of the entire document. For such encoders as Robert W. Harris, arrangement delineates the ordering of materials around visual and verbal concerns and the unity of both of these.

In Harris' theoretical construct, an encoder achieves effective organization through conscious awareness of how decoders "interpret what they see on a page" (120). Visual materials are thus an integral part of a text's arrangement. The verbal cannot function successfully without the visual. Harris postulates that "Readers respond to a printed page primarily in two ways: they see the arrangement of text, space, and art; and they *read* the text. So in a desktop publication, two kinds of organization are important: *visual* and *semantic*" (121). For Harris, each set of elements gives clues about the other and ensures that an encoder's intended message is conveyed to a decoder without ambiguity. Harris maintains that visual is as

important as verbal: "visual organization creates interest and gives an *impression* of orderliness" (121). Much about the visual organization of a text conveys a sense of the message contained within the words. Centuries earlier Quintilian observed that "the order in which the facts are stated may help or destroy belief, for consistency must be considered in placing things together " (I: 186; bk. 7, ch. 2).

Organization, Organization, Organization

One of the questions in the Survey for Experienced Editors, Authors, Publishers, and Reviewers (Figure 2.2), asked that participants address the element of arrangement. Participants were asked to explain the criteria used in establishing arrangement of materials within the context of their own publishing endeavors, most of which pertained to journals and monographs.

A participant who can be named here, William E. Tanner, has been the editor of a substantial number of scholarly monographs. In his response, he reported on a project which he had undertaken in the summer of 1994, one in which he would be co-editing the entire body of work produced by a single scholar, now deceased, who had a long and productive professional life. On contemplating the late scholar's long career, Tanner immediately began to assess the best arrangement of the scholar's vast output. One system which presented itself was to group these papers into the scholar's biographical pieces, his College English Association pieces, and so forth. Such a system would reveal facets of the scholar's personality and his urge to the

particular field of study which he had undertaken throughout his lifetime; at the same time, it would address his various interests within that field by placing like materials together. Tanner reported that such an arrangement was suggested by the papers themselves.

In a book that Tanner edited in 1993, The Arthurian Quest of Myth and Magic: A Festschrift in Honor of Lavon B. Fulwiler (Dallas: Caxton's Modern Arts Press, 1993), materials were divided into categories and subcategories. Though this arrangement was not made conspicuously evident in the Table of Contents, the categories were those of personal materials (regarding the honoree) and essays on literature, the literature being further divided between British and American. These literatures were grouped into yet other subcategories, and each category was correlated to the visual image which prefaced that specific section.

In a more recent book edited by Tanner, Rhetorical Designs for Professional and Technical Writers: A Teacher's Guide (Dallas: Caxton's Modern Arts Press, 1994), materials were divided into four discrete areas: Evaluation; Rhetorical Strategies; Course Design; and Rhetorical Expectation and Context. Again, as with the current project on which he has been working, Tanner allowed materials to suggest their own best arrangement.

The Roman rhetorician Quintilian taught that orations should be adapted to specific situations (I: 178; bk. 7, ch. 1). Horace Greenough and Louis Sullivan adapted this logic, thus formulating the theoretical construct that form followed

function. Like these men, Donald C. Stewart, has suggested an organic nature for arrangement, while pleading for composition instruction which departed from "atrophied and inflexible structures which seriously inhibit perceptions which are not culture bound" (97). Other innovative thinkers, too, have seemed to perceive that form follows function, that arrangement, in many cases, should grow organically from various elements which contribute to a specific rhetorical situation.⁷

Of the participants who responded to the question of arrangement on the survey (Figure 2.2), several wrote that they followed a variety of routes, three of these being the tried and true patterns of chronological, thematical, and spatial arrangements. Others, however, tried more innovative structures. Some attempted to manage the order in their publications by assuring that balance existed in the pieces included in the document, balance applying here to length, readability, and audience appeal. Another innovative method of arrangement was that of whim, suggested by an editor who seems to have thought in terms of the organic type of organization suggested by Quintilian and Stewart above. Another editor organized by strength of essay; for that editor, essays which had the most appeal in regard to their subject matter, writing style, and scholarship (perhaps), were the ones which should be placed in the forefront. Essays arranged in this way manipulated the audience and helped insure that an entire publication might be perused. Such an arrangement

⁷Encoders and editors make conscious decisions regarding arrangement of discourse; they do this in order to assist their audiences.

established a sort of path, encouraging readers through encoder control to follow the entire document to its end.⁸ Another editor wrote of a method of arrangement which alternated between groups of pieces which were of a general nature and groups of pieces which were theme-oriented pieces. Still another form of arrangement was that of clustering, a method which refers to the grouping of materials around a central idea . The wealth of innovative structures suggested by all participants demonstrated the abundance of effective means for manipulation and control of audience through rhetorical strategy.

The Opening

Any arrangement of textual matter is prefaced by introductory materials. These materials are dictated by the type of publication they serve. For a *festschrift*, for example, these may be an editor's introduction or preface, followed by the honoree's biographical information. A scholarly monograph may be prefaced with an introduction by either the general editor or another scholar and be followed by biographical materials on contributors (though these may be placed at the end of the publication). In either case, these introductory materials will serve to pique the interest of decoders by giving an indication of both the arrangement and content of the publication.

⁸The rhetorical strategy used by this editor illustrate editor's or encoder's choices of arrangements which manipulate and control an audience.

Introductory material, like the introductory sections of individual essays contained within an entire publication, may follow the suggestions of Winifred Bryan Horner, who structures her Rhetoric in the Classical Tradition around the rhetorical canon and repeats proven rhetorical strategies for opening with a question, an anecdote, or an interesting quotation (234-39). Horner reminds writers that the "purpose of the opening is to secure the interest and attention of your reader and to establish your credibility as the writer" (234). Horner claims that "the opening is closely connected with the ethical appeal" (234). Her position supports the hypothesis prescribed earlier in that the editor's (or author's) *ethos* is validated by good arrangement. Horner suggests that the encoder tell readers why the encoder material is important to the reader and that the encoder tell the decoder why they should want to read it. The opening material may even be useful, according to Horner, in gaining a reader's goodwill (234). The introductory material, as Horner has stressed, may be used to capture the reader's attention, an attention which will move on to other materials and messages if not captured early.

Horner declares that a "carefully chosen quotation can serve as an opener by setting the tone, often by either reinforcing or opposing what you are going to argue" (235). Indeed, a quotation may serve to delineate sections of a publication and may illustrate or embody particular aspects of the overall publication itself, or it may only serve to do this for the individual section it introduces.

Opening a piece with a question is also effective. A question, like a quotation,

may also embody the essence of an entire piece, whether that be the essence of the entire publication or that of an individual essay. It may involve the reader, pulling the reader into full participation with an overall document.

An anecdote, too, may involve the reader. Because anecdotes have structures and devices which mimic those of story-telling genres and personal narratives, they can capture reader attention. Their similarity to "stories" are of interest, because "readers are often attracted to real situations involving real people" (238). Well chosen, "they arouse interest and curiosity" (238).

Arrangement and the Message

Arrangement of discourse, as has been noted above, is typically chronologically, thematically, or spatially. But segmenting by genre is also a viable means of arrangement used by editors. Genre is particularly useful for the arrangement of works dealing with various kinds of literature, such as prose and poetry; it is also useful in the arrangement of art materials. A work dealing with art, for instance, might be segmented into sculpture, painting, printmaking, and other sections.

In her 1992 dissertation, "A Rhetoric for Professional Writing: Global Writing," Anne Gervasi created a model which outlined four discrete areas into which most writing could fall. These headings were defined as Instructional, Investigative, Persuasive, and Expressive. To each of these headings, Gervasi assigned specific

patterns of arrangement. She correlated sequencing with the Instructional heading, information flow and stress with Investigative, classical models with Persuasive, and genre with the Expressive heading (168). Using a model such as Gervasi's, like using the model created by Dragga and Gong, assists editors and authors in the arrangement of materials, because it induces them to identify specific functions of documents with which they are working.

Under Gervasi's plan, sequential structure is used in those documents which emerge from informational needs. In this type of document, the decoder "needs step-by-step information to learn a new skill or process" (172). With her plan, writers "balance old and new information . . . to keep logical pieces of discourse together," arranging "text to facilitate performance" (172).

Investigative writing is a type of writing which Gervasi describes as that which "grows from writer urgency to offer new knowledge and share information within an established discourse community" (176). Arrangement for this type of discourse must conform to the dictates of the conventions of the specific disciplines in which an encoder is working.

Persuasive writing is defined by Gervasi as that which "requires context sensitivity which recognizes power demands" (182). For it, arrangement follows yet another pattern. Arrangement for persuasive writing, as identified by Gervasi, may be dictated by a number of concerns. Gervasi declares that "the discipline, profession, or task of the writer governs arrangement" (183). But her model for

writing encourages the exploration of other forms which link arrangement and invention. These forms are classical argument, proposal, and evaluation (183).

In Gervasi's expressive mode, a writer's intent is to reflect or amuse. For Gervasi's purpose, which is to instruct the professional writer, the expressive mode lies outside the scope of work addressed in her dissertation, because she has visualized the work of professional writers as having little expressive intent. For this reason, she has looked only at genres as arrangement strategies for professional writers as these apply to expressive intent; she has postulated that "writers learn conventions of genre, specifically the narrative, that transform instructional, investigative, or persuasive writing to the expressive purpose" (188).

Though Gervasi's "Global Rhetoric" is directed to the professional writer, her model is helpful for almost any type of writing. Covering a variety of writing purposes, it might be helpful in particular to writers of technical documents, most of which might be categorized under her instructional heading.

The way in which a document is arranged, however, implies more than simply the arrangement of its information. Arrangement in a self-published document in the information age demands that an entire document be carefully considered, ordered, and designed. In the information age, the total published piece must be perceived as not only the form in which a message is presented but also the message itself. In self-published documents, encoders' rhetorical considerations encompass the entire spectrum of writing and illustrating, as well as that of managing technology,

publishing, printing, and information.

Arrangement and the Conclusion

A well balanced arrangement of materials requires that a work have an end, in addition to the beginnings and middles discussed above. Concluding materials round out a document. They give it visual coherence and may add materials which were not included in the body of the work, materials which were either not available or were somehow overlooked or ignored. An epilogue, for instance, allows for the addition of information which may have only become available to the editor/publisher after a work has been prepared for publication and has already been typeset, ready for the printer, or already with the printer. Such information may add tremendous dimensions to the message contained within the volume and so round out or finish the message more satisfactorily. Rhetorical strategies of egress and closure depend upon the visual as well as the verbal.

Arrangement and the Medium

Arrangement and medium are closely associated in the information age. Using a desktop publishing product such as Ventura, the editor/publisher of an anthology or monograph, for instance, creates a classification for each piece which will be included in the anthology or monograph. All parts of this projected book—the table of contents, the list of illustrations, any biographical information, illustrations, the text

itself, the index, and any other materials—are then gathered into a publication file which manages the entire document. Because the publication file manages the document, the editor/publisher freely moves and rearranges individual units of text and image as the book develops and is modified. If an original pattern of arrangement has not developed as planned for the document, the publication file allows the editor/publisher to rearrange various parts quickly and efficiently. Using the same file, the editor/publisher may then rearrange the entire document so that page numbers correspond with the modified text.

The medium, which has become an increasingly significant part of the message over the past few decades, is not only important in the arrangement of text but also in the creation and arrangement of visual enhancement of textual messages. Graphs, charts, and fonts are much like those of images, headers, footers, and other visual additions to texts; they can be, through the use of the proper electronic medium, created and captured, adapted and manipulated, arranged and rearranged to emphasize or enhance arrangement of textual materials or to suit the particular needs of an individual encoder's message.

Marshall McLuhan's The Medium is the Message, a prime example of melding all components of a message, demonstrates through its coefficient of image and text the results of a successfully integrated rhetorical strategy. In an unsigned article on April 3, 1967, "Graphics Convey Message in The Medium is the Message, the Publisher's Weekly documented both the plan and design of Marshall McLuhan's

messages. This article, reprinted by Harry H. Crosby and George R. Bond in The McLuhan Explosion, has acknowledged the authority given to the textual message by Quentin Fiore's [the book's illustrator] graphics. Fiore's graphics, the article claims "not only amplify the text by Marshall McLuhan and Quentin Fiore; they help make 'McLuhanism' intelligible to many people for the first time" (203). In other words, for the anonymous author of this article, Fiore's graphics play such a profound part in illustrating McLuhan's message, that his message might not have reached his audience in McLuhan's intended manner had it not been for the message's enhancement provided by Fiore's illustrations.

McLuhan explores his observations on the effects of new technology in a work that demonstrates his philosophy, a work which the Publisher's Weekly article classifies as a "generally straightforward text" (Crosby and Bond 203). Application of the newly constructed model which assists in measuring textual or visual orientation, created by Dragga and Gong (see Chapter 2), would rank the work's orientation as strictly textual. McLuhan's actual text is not lengthy; it fills less than half the book's pages. The remaining space is arranged around the graphics, which are "highly imaginative visual displays to get the points across" (203).

Fiore told the anonymous author of the Publisher's Weekly article that he and McLuhan planned the book together. According to Fiore, "the basic element of design [or arrangement] idea was the use of motion picture techniques to express the ideas" (203). Images were sometimes spread over successive pages so that they

emphasized particular statements. Illustrated graphically, for instance, was the text which stated "All media work us over completely. They are so pervasive in their personal, political, economic, aesthetic, psychological, moral, ethical, and social consequences that they leave no part of us untouched, unaffected, unaltered. The medium is the message. Any understanding of social and cultural changes is impossible without a knowledge of the way media work as environments" (204).

To visually illustrate the overwhelming effects of the media, Fiore uses and arranges pervasive images; he spreads these over a number of successive pages. Images pour from one page to another and emphasize McLuhan's verbal message profoundly and immediately. One such image is that of a full-page bleed (bleeds are reproductions of images which "bleed" off the edges of the page.) of a toe. The toe is placed facing McLuhan's statement which proclaims the wheel an extension of the foot. Images which follow the toe are those of the middle toes and big toe. Text has been added to these images. The words "the wheel" have been added to the image of the toe (204). Fiore's arrangement of visuals follow McLuhan's arrangement of textual discourse. They thus compliment, emphasize, and extend the arrangement of text and drive the verbal message home for the reader. The published piece, with images and text working collaboratively, is thus a cohesive, powerful statement which has an enormous impact on the decoder.

The Final Analysis

Rhetoric implies choice. Subtext states that rhetoric implies design (which may be thought of as another term for arrangement). Encoders design messages when they practice rhetoric in that they make decisions (or choices) about subjects, audience, points of view, and purposes (Lindemann 37). As they make decisions regarding the best ideas, best arrangement, and the best use of language to express those ideas, they have made choices (37). By making decisions and choices, encoders build strategies which assist in influencing and affecting audiences (37).

Such strategies actually contain little more than the balancing act required of all good practical design: that form consider function. These promptings, like those of the early Greek rhetoricians, the eighteenth-century president of the Royal Academy Sir Joshua Reynolds, the nineteenth-century artist Horace Greenough, the nineteenth-century architect Louis Sullivan, the twentieth-century Bauhaus director Walter Gropius, and countless art teachers, encourage encoders to design messages in which form is balanced with the function of the discourse.

A discourse adhering to such an admonition will emerge as one that is well-balanced, coherent, unified, and logical. Good organization will establish the good will of the encoder and will make decoders of self-published discourse feel that they have been considered, and because good arrangement will meet the expectations of decoders, it will conform to the requirements of Kenneth Burke's form. Good organization will fulfill the promise guaranteed in tables of contents and indices,

which promise decoders that they will find materials at specified locations within a document. By avoiding the frustration of disorganization, good design in a document will gain decoders' goodwill for its creator, thus helping to establish *ethos*.

Computers equipped with word-processing software, graphic programs, and desktop publishing packages have placed scholar/encoders in unique positions of having total control over their messages. The arrangement and manipulation of text, the coordination of visual images, and the arrangement and management of the entire document are made much simpler for these scholar/publishers. With computer technology and desktop publishing, long documents may be arranged and rearranged in just minutes. Images may be imported from outside sources and manipulated, flipped, and enhanced. Graphs may be created in the document to illustrate points made in the text and text arranged around these. Arrangement, with desktop technology, has taken on a variety of meanings. Arrangement can no longer be thought of as the simple arrangement of an argument, the body of a text or essay, or even the arrangement of a textual document. Arrangement has come to be an element which encoders must consider and define in new ways.

Over the centuries, the attention given to element of arrangement has waxed and waned. At various times in the past it has been slighted in favor of other elements such as style (Lindemann 41). Currently, however, arrangement may be witnessing a resurgence. At present, arrangement is a factor that is vital to the production of any dialogical context. How will the information be structured in order

to compete with the vast amount of information already bombarding the decoding public? How will it be structured to hold a decoder's attention once that attention has been captured?

As an encoder begins to think about a written piece, the process of arrangement begins to take place. Almost unconsciously, the encoder begins to consider ways to arrange information. Patterns of arrangement which have been suggested within this document may be helpful, but individual cases may suggest other means. The intent of this document has been to alert encoders to possibilities not only for textual arrangement but also for possibilities of arrangement for entire documents—the visual and textual—and the possibilities for arrangement and coherence of visual and verbal messages.

A scholar/encoder who chooses to self-publish will have the absolute responsibility for an entire publishing project. Such a scholar/encoder will have total control over visual aspects, arrangement of text, and arrangement of the document, a position which gives one person an exceeding amount of power and control and virtually unlimited dominance over a discourse.

CHAPTER 4

THE VISUAL DIALOGUE

Thinking is more interesting than knowing, but less interesting than looking. —Wolfgang von Goethe

Some six thousand years ago, with the invention of the first script around 3,500 BCE, the spoken word began to be visually represented on a surface, one that was both visually and physically set apart from the speaker (Ong 1977, 22). Until that time, communication belonged to an ephemeral sphere, one in which thought, as communicated through the utterance (speech), could be captured and retained only in the inaccuracies of memory. Speech could be thought, spoken, and heard, but it could be neither preserved in space nor manifested visually until the invention of the technology of writing.

Other visual forms prior to the innovation of the written word, such as markings and pictographs, served as mnemonic devices. But script (or writing), as Walter Ong has pointed out, is more than a mnemonic device, and even when pictographic, is more than a picture (1982, 84). For Ong, pictures are simply representations of objects. Ong argues that "A picture of a man . . . a tree of itself says nothing. (If a proper code or set of conventions is supplied, it might: but a code is not picturable, unless with the help of another unpicturable code. Codes," Ong

continues, "ultimately have to be explained by something more than pictures; that is, either in words or in a total human context, humanly understood.)" (84). Ong contends that script, "in the sense of true writing," as he understands it, "does not consist of mere pictures, or representations of things, but is a representation of an utterance, of words that someone says or is imagined to say" (84).

With the invention of this coded system of writing, people could capture and represent in space their own, or another's, words and thoughts. With writing, "a critical and unique breakthrough into new worlds of knowledge was achieved within human consciousness . . ." (84). With writing, "a coded system of visible marks was invented whereby a writer could determine the exact words that the reader would generate from the text . . ." (84). Writing was a system which produced visual language, rhetorically charged.

Like all new technologies, writing met with resistance. Though writing was destined to transform the culture in which people lived and worked (with writing, for instance, people could create written inventories of goods and chattels; communicate with their armies over great distances; and leave written records for those who followed them), it was centuries before the new technology could displace people's allegiance to their more ancient form of communication. Oral expression, deeply imbedded in the human psyche, continued to be perceived as the natural means of relating information and ideas to others (Ong 1977, 20-22); orality continued to be perceived as the form which, because of its demands on human memory to retain

information over long periods of time, stretched and expanded intellectual capabilities (Ong 1982, 80). Centuries after writing's invention, in his well-known dialogue Phaedrus, Plato wrote of how he distrusted (or had Socrates distrust) the technology of writing, arguing that it lacked the ability (unlike speech) to engage in dialectic. Plato seems to have assumed that with people's dependency on writing the rigorous exercises necessary for memory retention would fall by the wayside and intellectual vigor would diminish (79).

Increasing acceptance of written texts required that rhetorical theory (which had originally focused on the spoken word) shift to accommodate new technology. Ong notes that "Rhetoric itself gradually but inevitably migrated from the oral to the chirographic world. From classical antiquity the verbal skills learned in rhetoric were put to use not only in oratory but also in writing" (Ong 1982, 116). As this shift occurred, written texts functioned increasingly as the replacement for people's limited memory capacity. The element of memory, which had previously held such an important position in the canon of rhetorical theory, became progressively less important. By the sixteenth century, after the invention of moveable type, rhetorical textbooks were almost totally ignoring the element of memory, giving almost as little attention to that of delivery (116), two elements, which as Robert J. Connors has noted, continue today to be difficult for those in composition studies to adapt successfully (64).

Though sixteenth-century academic institutions and their rhetorical textbooks

began to turn away from some traditional precepts of rhetoric on the one hand; on the other, they continued to adhere to its oral-based tradition. While they no longer felt it expedient to teach the element of memory, neither did they recognize the correlation between oral delivery and the delivery of visual, printed text. While they gave much thought to style, rhetoricians seem to have failed to equate the oral or stylistic delivery of a message with its visual delivery in text. (Early creators of illuminated manuscripts had been concerned with aesthetic qualities of the written text and the impact of these visual qualities on readers' perceptions of textual messages.) The importance of visual qualities of the text (type style, type size, and other visual considerations) was given little, if any, attention by early rhetoricians who, though enlisting the written and printed word in their own works and teachings, continued to be unaware of both the existence of these visual codings embedded in textual creation and of the way in which these altered, enhanced, or negated messages they had intended to impart. Early rhetoricians seem to have been unaware that visual qualities of a printed document would have an impact on the perceptions of a reader and the reception and decoding of a given text.

Title pages from books printed in the sixteenth century exhibit the extent to which these considerations were ignored. Frequently mimicking handwritten manuscripts, title pages were often printed in what would later be considered an erratic manner. Words were hyphenated unexpectedly. This practice indicates both the printer's (and reader's) lack of perceptions of words as complete visual units and

the subtle continuation of auditory dominance (120).

Print was the catalyst which solidified preeminence for sight-dominated language, a language which could not have gained dominance, according to Ong, with only writing to support it (121). With print, words were situated "relentlessly" in space in ways that could never have happened with writing (121). Marshall McLuhan, who has called the book "an extension of the eye" (1967, 34-37), believes that print "upsets the balance of oral and written speech" (1969, 16). He maintains that the alphabet displaced the dominant sensory perception of the ear and replaced it with that of the eye (1967, 44).

With this shift to visual orientation, "confirmed and extended" by printing (50), McLuhan argues that rationality and logic became associated naturally with vision (45). McLuhan, who speaks of visual space as being "uniform, continuous, and connected," notes that "For many people rationality has the connotation of uniformity and connectiveness" (45). His belief that vision and rationality became aligned through the shift to a visually perceived linguistic surface, seems to be substantiated in the way contemporary culture has interiorized the concept of the rational being. People who are perceived by others in their culture as wise, rational beings are said to possess vision. In A Primer of Visual Literacy, Donis A. Dondis has insisted that the highest compliment which people can bestow on those who "trade in verbal currency is to call them 'visionary thinkers'" (7).

The degree to which the printed word shifted language to a spatial, visually

perceived plane, and the degree to which this was assimilated into some areas of the culture, is illustrated in writings as early as the seventeenth century. George Herbert's shaped poetry, for example, insisted that the reader acknowledge the way that printed words functioned on a page. The printed word, used in some of Herbert's poetry to shape poems into altars (Figure 4.1 below) and wings (the subjects of the poems), emerges as an emblem for the poems themselves.

The Altar

A broken altar, Lord, Thy servant rears,
 Made of a heart and cémented with tears;
 Those parts are as Thy hand did frame;
 No workman's tool hath touched the same.
 A heart alone
 Is such a stone
 As nothing but
 Thy power doth cut.
 Wherefore each part
 Of my hard heart
 Meets in this frame
 To praise Thy name;
 That if I chance to hold my peace,
 These stones to praise Thee may not cease.
 Oh, let Thy blessed sacrifice be mine,
 And sanctify this altar to be Thine.

Fig. 4.1. "The Altar." Reprinted with permission of Harcourt.

A person cannot read poems such as "Easter Wings" and "The Altar" without being cognizant that print itself functions as a major rhetorical device, a visual metaphor which lends considerable emphasis to the reader's apprehension of these poems.

Typographical form in these two poems, the way in which type is set on the page, is as important as the poems' contents. Visual form, the way that typography is used to indicate visual shapes to augment the writer's purpose, is the coefficient which molds and enhances the reader's reception and understanding of both poems. Herbert, who was a Reader in Rhetoric at Cambridge (Di Cesare 3), seems to have had some indication of the implications of visual delivery.¹

While it is true that print was slowly being assimilated into seventeenth-century culture, this assimilation did not occur without the resistance of those who saw the printed word as the harbinger of change. The move to the printed page, though very gradual, was a major change in the way man communicated information. Change of this magnitude, as Marshall McLuhan has shown, "produces a chain of revolutionary consequences at every level of culture and politics" (Counterblast 116). Such a complexity of process leads McLuhan to conclude that "prediction and control are impossible" (116), a fact that was recognized, as this change was occurring, by those in power in the seventeenth century, for with writing (and printing) came power and the command over space (117).

Those wielding authority in the seventeenth century recognized and feared, in the printed word, something that was potentially powerful, something that was sure to

¹Herbert served not only as a Reader in Rhetoric at Cambridge (in 1618) but also as Public Orator to the University from 1620-27 (Di Cesare 3), experience which came shortly before writing the poems mentioned above.

shift the delicate cultural balance which was already poised precariously. This fear is epitomized in the way in which the printing press and printed word were received in England, where the printing press had been introduced as early as 1476 (Abrams 360). By the seventeenth century, almost two hundred years later, both printed materials and print shops had been carefully regulated and limited, partially in response to pressures from illuminators and calligraphers, but in response to pressures from the government and the church, as well (Chappell 112). Chappell reports that "Printing was . . . viewed as a threat to established power, both religious and political" (113). England's censorship of the press did not end until 1694 though other factors also combined to slow printing's progress (Civil War, plague, the Great Fire) and its acceptance by the populace (113-14). News sheets, first published in England in 1622, were suppressed by Charles I in 1625 (127, 130). Additionally, printers' attempts to mimic handwritten manuscripts (Waldrop 191), a practice that extended into the late eighteenth century (141), indicate that the printed word was viewed by even the reading public with a certain amount of suspicion. Thomas P. Miller suggests that "Print [in the eighteenth century] was becoming a public presence of unprecedented economic and political significance" (32). He also notes that the slow "popularization and commercialization of literacy created a state of what Bakhtin has called *heteroglossia*, a state of discourse with many voices and few borders" (32). Still, resistance to the technology of printing was (Waldrop 33) as strong as that exhibited by Plato regarding writing, as strong as that which confronted the

technology of the computer-generated manuscript in the twentieth century.

As the printed text or sign gained acceptance, it replaced written manuscripts, which had been scarce, difficult to read, and expensive (Counterblast, 117). Printed texts were uniform, quickly produced, inexpensive and, most importantly, made texts available for perusal by a wide audience.

Books, perceived as recorded speech prior to interiorization of print, became with interiorization, objects in themselves (Orality, 126). These objects could be reproduced exactly; visual materials could be stabilized. Hand-copied illustrations in illuminated, handwritten manuscripts (products thought of as being of a piece) had been vulnerable to the copyist's understanding and knowledge of his subject matter. The printed book, however, because it was produced from moveable type (and therefore thought of as an product of various parts), could incorporate illustrations created separately on blocks and so could duplicate these materials exactly and uniformly through any number of printings (126-27).

As the printed word with its ability to repeat exact representations of visual and verbal descriptions of reality gradually eroded the supremacy of aural communication, it became not only the principal mode for the dissemination of information but also thoroughly perceived as an object which had implications of its own, a realization which had a major impact on the production of literary pieces.

Texts which were embedded with visual coding as well as with linguistic coding (for print itself is a visual medium) began to appear at an unprecedented rate

due to a paradigm shift which was completed more or less by the late eighteenth century (though some pockets of oral resistance held out much longer) (115), a period which witnessed the production of many self-published texts. Writers, who might also at this time be printers, publishers, and artists, managed the publishing of their own works, exercising greater control over their own messages in this way.

By the eighteenth century, an increasing number of writers seem to have recognized the significance of the printed page and its visual qualities. William Blake, artist, engraver and writer, self-published his own works, printing and illustrating these, as well, thus enhancing his messages by incorporating visual codes which had been devised specifically for his texts and messages. In many of these texts, visual images (figures and plants), because they are engraved on the same plate as that containing text, are an integral and inseparable part of the linguistic sign itself.

Blake's Songs of Innocence and of Experience, for example (first published as separate works in 1789 and 1793 or 1794, respectively), were engraved by Blake himself on copper plates which combined his own handwritten text and visual images. Both the visual image and the verbal text were created by the author and artist, Blake. He designed, engraved, and published the entire work under his own hand. Such works by Blake, when later published by others without benefit of either handwritten text or visual image, are works which are significantly altered. Lacking the visual coding which Blake had embedded into the text through both illustration and typography, these works no longer carry the same kind of semiotic images furnished

by their creator. The sense of immediacy and intimacy of message, conveyed to a reader by Blake's own handwritten script and illustrations, is lost in later printings of his works which either ignore or abandon Blake's rhetorical strategies. Poems published without these rhetorical devices cannot be read as Blake presented them to be read and understood. Jerome J. McGann asserts that "The physical constitution of these Songs—their sequencing in the different copies as well as their textual formatting, punctuation, and physical appearance of texts (including the ornamental materials)—is highly relevant to any study of their meaning" (McGann 42). Because he self-published, Blake could exercise control over both his message and its delivery to his audience.

Slightly earlier in the century Laurence Stern, in Tristram Shandy (written in 1759-67), utilized typology and other visual qualities of the printed page to enhance the signification of his literary message. Entire pages within this book contain signifying visual codes. Some pages are marbled; some are blotted out with solid black interiors enframed by crisp borders of white space; other pages are simply left in their original blank white states. Much like Blake, Stern understood the printed page as a signifying visual unit, a rhetorical medium with which to enhance his message.

In the nineteenth century, William Morris, a member of the Pre-Raphaelite Society, founded Kelmscott Press, a press which along with those of Doves Press and Ashendene Press, helped to bring about a "Renaissance of Printing" (Watkinson 59).

Morris had an "architectural concept of the book" (58), a concept which addressed the importance of visual design in rhetorical context. One of the most beautiful and famous publications of his press was the Kelmscott Chaucer, a publishing feat which used ornamental letters and borders (both of which, in addition to being ornamental, had rhetorical implications). Though Lewis F. Day has stated that Morris frequently overburdened the page, overusing decoration and tiring the eye (58), Kelmscott Press was known for beauty of paper, binding, and typography—all visual qualities that made significant contributions to a reader's reception of verbal and visual works of art.²

William Morris had wanted to produce books which were not only beautiful but also easily read, with type that, like that of the fifteenth century, enhanced a reader's experience of and pleasure in the sign of the text (57). He believed that in addition to a book having type that was well designed and that took into account other visual qualities such as margins, a book's type and its pages should have a feeling of balance and proportion (57). His appreciation of typographical design gave impetus to the modern concern for visual qualities of typography, a concern which has fostered a literature dealing specifically with typography, print history, and its techniques (57).

Poets in the twentieth century, too, have taken advantage of visual signification

²Other critics who have commented on Morris' typography are Stanley Morison (Four Centuries of Fine Printing) and Holbrook Jackson.

offered by the typographical medium. E. E. Cummings (who preferred the lowercase e. e. cummings), for example, is known for his use of typography to indicate patterns of rhythm and meaning. His frequent use of lowercase lettering diminished the formality of poetic form and opened a window of dialogue at a more intimate level with the reader.³

In the sixties, the concrete poets combined the use of word puzzles, anagrams, palindromes, and other word-plays in typographical settings that also used type as illustration. Their poetry produced a fused message of type, text, and image (Cotton 22). Ong has suggested that concrete poetry "plays with the dialectic of the word locked into space as opposed to the sounded oral word which can never be locked into space" (*Orality*, 129). He has also emphasized the importance of typography to message by postulating that "Concrete poetry is not the product of writing but of typography" (129). "Seascape" (Figure 4.2 below) illustrates that graphic qualities are as important as verbal qualities in concrete poetry.

oceanoceanocean
oceancanoeocean
oceanoceanocean

Fig. 4.2. Example of Concrete Poetry. Reprinted with permission of Macmillan.

As print was interiorized, writers and poets used the printed format not only to

³Because of difficulty with copyright, the reproduction of Cummings' poetry has been rendered impossible.

WORD GALLERY

Errór

Con?used

SUCCE\$\$

(s) (h) (y)

REDUced

G AP

Foot*

*note

Continu. .

. . . .ed

OBS—NE

A

N

G

L

E

Fig. 4.3. An Example of Visual, Typographic Impact in Verbal Message. Source: David Bissonette, College English Oct. 1975: 202. Reprinted with the permission of the National Council of Teachers of English.

relay their messages to a reading public but also to enhance and enrich these messages. They learned to perceive (see Figure 4.3 above) the printed page as a visual instrument that could lend itself to the act of rhetorical delivery.

Another of the major effects of print, however, was its creation of the individual (1962, 213). The book, significantly more portable than any handwritten

manuscript, could be read in "privacy and isolation from others" (50). It seems logical that isolated reading also encouraged silent reading of texts which possibly helped in the interiorization of print. Handwritten manuscripts, because of their scarcity, had been read aloud so that larger numbers of people might benefit from them (another reason for reading aloud being that of illiteracy). The printed page encouraged the spread of literacy, but as it did so, it helped to create a context in which people could involve themselves in a limited kind of participation with others. With the spread of print, people could detach themselves from the herd, while continuing to maintain a reassuring connection with the safety of the crowd (much as they may do in the twentieth century through the use of a computer and on-line services).

While McLuhan has argued that the book created the individual, he has also pointed out that it created the public and the concept of the national sphere (1962, 7). Handwritten manuscripts could not have accomplished this, because they lacked "the intensity or power of extension necessary to create publics on a national scale" (7). Print, a product of mass-production, initiated a consumer culture. McLuhan has also asserted that print taught men how to organize other aspects of their lives, markets and armies, for instance (1962, 169).

The shifts from orality to that of written manuscripts and later to printed, spatially expressed visual language, represented corresponding shifts in people's perceptions of themselves and their world. Dialogical contexts of the visual text,

portable now, became objects capable of being pondered as they were viewed and read again and again. (The rhetorical impact of visual language might be illustrated here in the use of the phrase "again and again." To have used instead the word "repeatedly" would have indicated verbally the rhetorical figure of *repetition*, but the visual, spatial repetition of the two words in the phrase "again and again" seems to give added emphasis, because it expands the visual space occupied by this verbal sign, adding visual impact, while emphasizing verbal priority.) With visual language, a reader could see the language on the page, distinguish pauses in dialogue as these came to be indicated by spatially isolated words and visual cues; an individual's eyes could scan style and weight of type, note (even if only at an intuitive level) the color of the ink and paper, study codes and signs such as punctuation (as this evolved), and could reflect on visual images (illustrations expanding on textual signs) on the printed page. A reader could hold and feel the weight of the book, this pleasurable experience being increased by texts which now appealed to several senses at once (while at the same time, influencing a reader's reception of the message): touch (the texture and thickness of paper on which the text was printed); smell (of ink and paper); sight (of illustrations, paper color, font size and style, textual design, and cover design), all of which had rhetorical implications.

Computer technology has demanded again that rhetoricians reconsider the way in which rhetoric is perceived and applied. Affecting the entire canon of rhetoric, computer technology has embedded the spoken word more profoundly into a

spatial environment. Technology has transformed the way in which the textual sign (visual language and messages) may be encoded and decoded in ways unimagined prior to this technology (and has extended this power to the individual writer). Visual language, rhetorically charged from its inception as written signs, is charged profoundly with electronic processing's capacity for manipulating words, space, images, memory (the computer's almost infinite capacity for storage of data), and text.

In a recent article in the Rhetoric Society Quarterly, Rosemary E. Hampton has declared that "In a technologized world, communications take on a new perspective—a visual perspective" (347). Echoing Robert S. Cathcart, she has made the observation that technology and mass media are active, signifying qualities which have great impact upon a message (347). She has written persuasively for the integration of graphic design and technology into composition classes, maintaining that composition teachers should understand and teach visual rhetoric so that writers can control reader response and interpretation of discourse (347). Integration of visual and verbal skills has also been advocated by Stephen A. Bernhardt, another rhetorician who has written about the correspondence between these two sign systems. He voices the following prediction about visual delivery: "Classroom practice which ignores the increasingly visual, localized qualities of information exchange can only become increasingly irrelevant (77)." He adds that in classroom practice, "Influenced especially by the growth of electronic media, strategies of rhetorical organization will

move increasingly toward visual patterns presented on screens and interpreted through visual as well as verbal syntax (77)."

Desktop publishing, emerging less than ten years ago, has been instrumental in creating this new attitude. Like the computer, of which it is outgrowth, it has demanded a reassessment of rhetorical applications. This technology integrates word processing; typesetting; and graphics, giving writers and scholars increased authority over textual meaning. With it, the scholar has access to a vast array of typographical tools with which to manipulate and enhance messages visually. Rather than functioning as the initiator of written (or electronically produced) text only, the scholar can be, with desktop publishing, the person who also creates the final product of the printed text. With desktop publishing, the scholar may design the format, choose type style and size, design or choose graphics, and utilize other visual cues that may alter significantly an audiences' response to the textual sign as it emerges in its final published form. As demonstrated below, these and other capabilities lend the scholar almost infinite possibilities for control of textual messages.

Though typeface is probably the most subtle of visual elements a scholar might employ (though it is the one most frequently ignored by rhetoricians), it is also one of the most important and the most easily used. Not only does it physically deliver the verbal sign of the linguistic message, but it also may deliver it through the visual unity of type design with verbal purpose, in a manner which enhances a message's intent.

Type Face

Type and font refer to different aspects of typography. Type is "an alphabet designed with consistent visual characteristics" (Binns 11); type is a family of typefaces. Different families of type may vary drastically in style, but all will be available in either *serif* or *sans serif*. Serif styles have smaller lines, called *serifs* (type style in this paragraph is *serif*), which protrude from the ends of letters. These encourage the eye along a continuous horizontal line and improve, according to most research, the readability of the text (Binns 17). Research indicates that *serif* styles, though usually thought of as more old-fashioned than *sans serif*, are best for body text (Klaiman 100). *Sans serif* styles lack these small lines.

This line is set in serif.
This line is set in sans serif.

Fig. 4.4. *Serif and Sans Serif Typography*

A font of type is defined by Klaiman as a "set of characters, in the same size, comprising all the letters of the alphabet in both upper- and lowercase and all the figures and marks of punctuation" (11). In other words, fonts are all the alphanumeric characters and punctuation marks of a particular typeface. These are available in numerous styles in software packages.

Scholars using typographic tools available on desktop publishing may alter messages drastically by doing no more than changing one typographic characteristic.

Figure 4.5, below, illustrates ways a scholar might change emphasis (and alter meaning) of a message:

1. You said that you would read the information before leaving.
2. **You** said that you would read the information before leaving.
3. You said that you would **read** the information before leaving.
4. You **said** that **you** would read the information before leaving.
5. You said that you would read the **information** before leaving.
6. You said that you would read the information **before** leaving.

Fig. 4.5. A Typographical Altering of Message. Adapted from Charles Kostelnick.

Though the words themselves are identical in each of the sentences above, meanings have been modified through the manipulation of type characteristics. By typographically emphasizing (using boldface type) the word "You," in the second sentence, the scholar has changed what was implied in the first and has indicated that there is some argument regarding responsibility for agreement about reading the information. Likewise, the third sentence, by typographically stressing the word "read," takes on an accusative quality which implies that persons addressed are guilty of not having kept their word. The typographical stress in the fourth sentence creates a confrontational message which again points an accusatory finger and indicates a broken promise. Stress in sentence five suggests that something other than the information was read, while emphasis in sentence six leads an interpreter to believe that the person addressed in the sentence has read the information only after (visual typographical stress used here emulates the stress which would be used in spoken

dialogue) leaving. Likewise, by changing the font size of an entire word to uppercase (BEFORE, for example), the message would take on yet other implications. The medium, manipulated in such ways, can very easily become the message.

As this illustration demonstrates, type style can change a message dramatically. The writer of this electronically produced manuscript has altered an innocuous statement, creating in its place sentences which, because of the emphasis on different words (emphasis created by type characteristics), indicate a variety of different messages, none of which very closely parallel the message in the original sentence.

A demonstration as simple as the one above indicates how type style alone may affect reception and interpretation of messages. Type styles, like other visual considerations involved in the dialogical sign of the printed message, are visual signs which, in addition to being perhaps beautiful and readable, are also extremely expressive.

Because typography is a rhetorical element that any writer or scholar may easily enlist and manipulate using desktop publishing, its various rhetorical qualities are classified and illustrated below.

Legibility and Readability of Type

The most basic requirement of textual type is that it be easily read, though it must be more than legible, for type may be legible and not readable. Readability

demands that the textual sign be smooth and capable of being read easily without tiring or boring the reader. Readability is the "quality that makes the page easy to read, inviting, and pleasurable to the eye" (Binns 16).

Psychology and communications theorists' research has proven that ideally legible text is dependent upon factors such as "relative proportions of line width, type size, and spaces between lines, words, and letters " (16). Researchers have found that individuals read words in groups that are within one eye span, a normal eyespan being twelve to fifteen picas wide (16). They have also found that a column of type set too wide, "any more than two-and-a-little eye spans," is inefficient; it may tire the reader, because it forces the reader to move both the head and the eyes (16).

Researchers have also found that two other factors, the proportion of type size to line width and the horizontal flow, which is conditioned by white space between lines of type, contribute to readability (16). Betty Binns warns that "If the size of the type is too great for the measure, very few words will fit on the line, and word spacing will become very uneven. Many of the line endings will be hyphenated, causing reading rhythm to be broken. If the size of the type is too small for the measure, the reader will have to focus more closely, reducing the eye span. . . . [which] leads quickly to fatigue (16)." The most common mistake is not the use of typeface that is too small but rather that is too large. Legible and readable lines of typeset text may be obtained by using a rule of thumb which requires an average of eight to ten words to a line (16).

Equally important to readability is proportion and distribution of white space between lines, words, and characters (17). If white space is absent between lines, the eye cannot move down a line of type easily. Neither can the eye distinguish individual words as separate linguistic units if too much white space exists between them. Too little space between letters (and words), however, can also create problems. Such letters as *r* and *n* (when set side by side), for example, are not easily distinguished as two letters and may be perceived instead as the single letter *m*. Space may be used to either set off letters or isolate them into specific units.

Other considerations affect readability of text, also. Accomplished readers, as proven by research, recognize words not as individual words, but primarily through their outlines. A scholarly self-publisher, aware of this research, would avoid long passages of text set in uppercase type, because uppercase is made up of letters which are mostly rectangular in outline; uppercase is also lacking in ascenders and descenders (parts of lowercase letters which rise above and fall below the normal baseline), as well (Binns 10). Long passages typeset in this way can slow individual reading speed by as much as ten percent and thus create difficulty for the reader (17).

Justification of margins is also an important factor in readability. Without left justification, a reader will have to struggle to find physical beginnings of each line. Left justification, therefore, seems necessary for anchoring of text. Right justification, however, is another matter. According to research, unjustified right margins are easy to read because the uneven white space they generate perhaps

compensates for patterns of broken eye movement (17). To many, justified margins signify a traditional, even professional quality, while unjustified margins signify one that is more avant-garde in its implications (Klaiman 101).

Though all of these factors are important in order for a reader to decode a textual sign efficiently and successfully, some are more important than others. As the following examples suggest, perhaps the most important relationships pertaining to readability of text exists between "visual type size (characters per pica), line length, and line spacing" (Binns 17). Adaptation of type size is exceptionally important for very young readers and for the visually impaired. Accommodating type size to specific needs can make texts available to broader audiences.

The use of a too large type creates a text that is difficult for a reader to follow, because its lines (and thoughts) are broken frequently.

The use of a too large type creates a text that is difficult for a reader to follow, because its lines (and thoughts) are broken frequently.

Fig. 4.6. Typographical Relationships.

Dividing the Textual Sign

Like typeface, headings; subheadings; arrows; lines; text frames and page borders play an important role in the way readers respond to visual language.

Codings such as these divide the text visually. They are signals which alert the reader to concerns such as parallelism and subordination of textual information.

Headings and subheadings, for instance, are always distinguished from one another either by point size or type style; they may even be distinguished by physical placement. Major headings are usually created using larger and bolder type face than that used in subheadings. All the letters of a heading may be in upper case; they may be in bold face, and they may be centered. All other headings within the same document would follow this pattern. Only the first letters within subheads within the same document would be capitalized. All subheads might be aligned against the left margin and be in set in a non-bold-faced type. Headings such as these signal to the reader the importance of information through the visual management of the verbal message.

Pie charts and graphs visually enhance linguistic information. They provide readers with information in a manner which is easily managed. Information is visually illustrated through segmented shapes or bars which are visually cued to linguistic symbols. Through the visual, physical division and segmenting of material, reader acquisition of materials is expedited. Graphics codes such as these present information for readers who need to see how particular segments of information

divide physically. Information presented in such a way is particularly accessible to those readers who would glean information at random from a text.

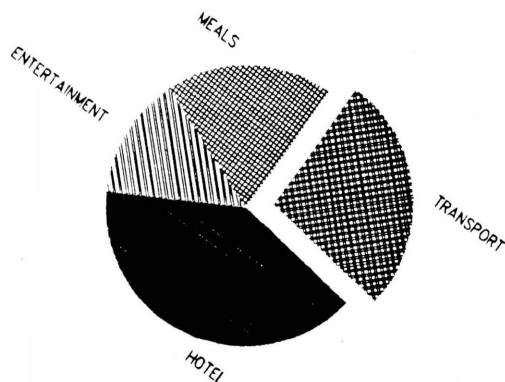


Fig. 4.7. Pie Chart Illustrating Visual Information.

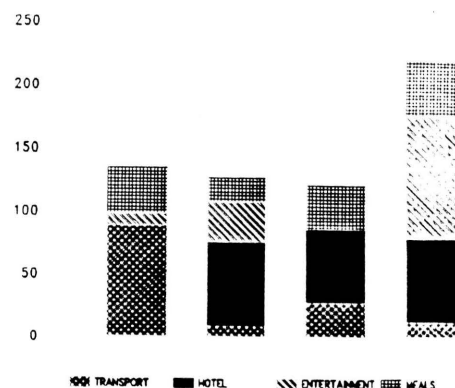


Fig. 4.8. Graph Illustrating Visual Information.

Paragraphing also serves as visual cues to readers. Indentation of paragraphs and of quoted materials gives visual cohesion to units of related information. It also visually communicates to the reader a shift in thought, a shift easily followed because of this visual coding.

Such visual cues as those listed above are frequently perceived only at the intuitive level by some readers, but as Charles Kostelnick has pointed out (1990, 190), their rhetorical implications, even when pronounced, are sometimes discounted or ignored. However, as Kostelnick's and other's works have shown, the rhetorical impact of visual coding should be understood and managed by those who would take total control of their own messages.

Kostelnick is one of an increasing number of rhetoricians who has written about the effects of visual rhetoric on verbal messages; he has identified several variables in these visuals. The first of these, "intra-textual" codes, are changes made through simple typographical variations, such as boldfacing, italicizing, and the use of upper and lower cases. Figure 4.5 (above), an example of this "intra-textual" coding, reveals how changes to typographical coding can shift the entire meaning of the message by altering emphasis and tone, "heightening some parts [of a textual sign] and embedding [that of] others" (190).

Heightening the Textual Sign

Heightening is similar to the emphasis an encoder may add to a word in spoken language. It affects and is affected by its contextual situation. Operating in much the same way as those works of visual art which play with viewer perceptions through figure-ground reversals, heightening raises the figure from the ground (as shown in Figure 4.9, below) and focuses a viewer's attention on a specific characteristic of the visual material.

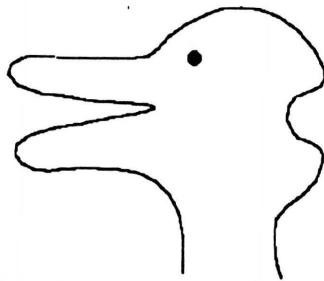


Fig. 4.9. Figure-Ground Reversal. Adapted from Rudolf Arnheim.

Through insistence heightening demands, by gaining priority in readers' visual attention, that readers alter their visual perceptions of text. By manipulating the reader's visual attention, heightening also manipulates the reader's perception of the written word by almost visually obliterating (in the reader's vision) parts of the text. Controlling the eye through such means as heightening, the scholarly self-publisher also controls how the message will be read and decoded. Heightening's successful (even persuasive) use, therefore, is dependent upon the sender's knowledge of rhetorically charged visual language, as well as knowledge of audience and purpose. The explanation accompanying Figure 4.5 above illustrates the way in which visual heightening and perceptions of visual contexts (visual language which surrounds a particular visual code) alter reception of a message (191). For visual context, too, as Rudolf Arnheim has demonstrated, can significantly color perceptions of a visual message (36).

As Kostelnick has suggested, these visual alterations are almost endless with desktop publishing (192). With desktop publishing and its multitude of fonts and

graphic capabilities, the possibilities for changing or combining visual codes (along with possibilities for altering the visually perceived verbal message) seem almost infinite.

Yet, these changes address only the codes which Kostelnick identifies as intra-textual. Other variables include those which Kostelnick has identified as inter-textual and supra-textual cues. According to his classification of visual effects, inter-textual codes are subdivided into three groups: (1) alphanumeric (partially illustrated by this list), (2) spatial, and (3) graphic cues. The first of these indicates headings or numbers; the second horizontal or vertical positioning of text; and the third such graphic possibilities as bullets, arrows, and graph or table lines (192).

Ordering the Textual Sign

Kostelnick's sample text, which is adapted below and identified here as Figure 4.10, illustrates the organizational, spatial, and hierarchal patterning which may be achieved with these variables.

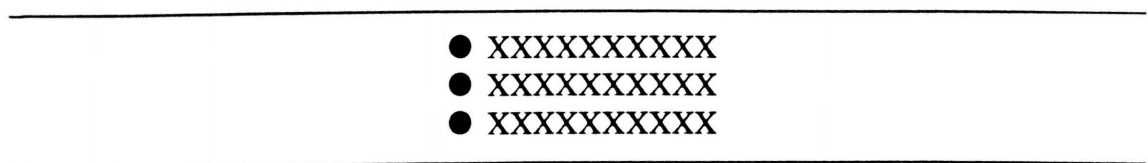


Fig. 4.10. Bulleted Text. Adapted from a model by Charles Kostelnick.

Text is balanced both horizontally and vertically within the framing lines of the box,

which define text boundaries. The horizontal division of text into three segments is accomplished through spatial ordering, controlling organization of text, while at the same time, accommodating the desires of human perception, which strive to inflict order upon all visually perceived stimuli.

The bulleted list in Figure 4.10 is set off visually and spatially from the surrounding block of text (like the numerical list in Figure 4.5). Items in the list are organized into a visually balanced pattern, suggesting that items are of equal weight and importance. Lines within the list exhibit proportion and symmetry. They signify through visually emphasized structure, the parallelism which exists between image, idea, and word. Parallelism is further amplified by the bullets which initiate each item. The rhetorical strategies enlisted here embed the bulleted list within a block of text in a visual pattern that heightens effects of textual presence and importance.

Such rhetorically charged visual devices may be enlisted to lend hierarchal order to a verbal message. In a linguistic message which directs the reader through a series of ordered steps, for instance, the bulleted list above might be used to visually complement the ordered structure. Figure 4.11, below illustrates this function.

Before beginning the testing procedure, complete the following steps:

- Write your name and social security number in the space provided.
- Read instructions for Part A
- Read instructions for Part B
- Complete Parts A and B before advancing to Part C
- Read instructions for Part C
- Read instructions for Part D

Fig. 4.11. Hierarchally Ordered Message.

As Figure 4.11 demonstrates, graphic codes are powerful indicators in shaping a message. The bulleted list functions to establish visually the same ordering of information as that demanded in the linguistic text. The bulleted list, arranged one item over the other, in a sort of descending order, indicates by this very form, that information contained therein is to be followed in the same descending order as that shown visually in the downward steps of the text. Bullets, placed one over the other, insist on linear verticality; they draw (and control) the eye of a reader down a list of steps (in some cases, steps that are vitally linked) which proceed, like the line implied by the bullets, from top to bottom.

Though the bulleted list above is successful rhetorically, messages such as those shown below in Figure 4.12 (reprinted with the permission of Charles Kostelnick) might not be so appropriate with a bulleted structure.

We cannot award the contract to you for the following reasons:

- ◆ Over 60 firms submitted proposals for the work.
- ◆ We prefer contractors with at least ten years of experience.
- ◆ Our finalists can offer more flexible scheduling.

Fig. 4.12. The Visually Heightened Message. Source: Charles Kostelnick, "The Rhetoric of Text Design in Professional Communication."

Here, visual heightening emphasizes important information and rivets reader attention on that material by creating a hierarchal pattern. However, this specific patterning for this particular information is inappropriate, perhaps even offensive to many readers (194). In this case, "Protocol demands that this kind of information be visually embedded on the page—be made less accessible—so that readers encounter it sequentially within the discourse rather than at first glance" (194). This example provides an important consideration for those who would persuade a reader of a particular point of view.

Using the capabilities of desktop publishing, scholarly self-publishers might choose to add these bullets, or they might choose circles (which may be filled or left hollow), as illustrated in the following example which exhibits the limitations of typewriter technology.

The typewriter limited the writer's control over

- ⓧ typeface
- ⓧ page layout
- ⓧ verbal message

Fig. 4.13. Example of Text with Leading Character.

With desktop publishing, scholarly self-publishers might choose other options for enhancing the textual sign. They might surround text with frames (either in part or totally). These frames and their backgrounds might be left hollow or, if appropriate, be shaded to provide a background which lends emphasis to text contained therein. Texts which are enframed with shaded backgrounds not only capture a reader's attention, but they also add variety, emphasis, and give visual texture to the page (as shown below).

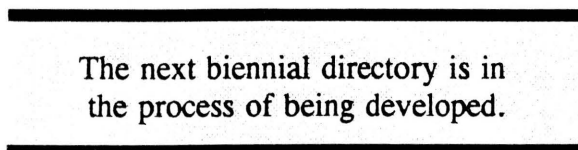


Fig. 4.14. Text with Shaded Background.

A reader's attention also may be controlled by scholarly self-publishers through the addition of arrows to the textual sign. Arrows might be used to direct a reader's eyes along a specific, but non-traditional reading route. For example, George Yoos, another rhetorician who has examined visual rhetoric, has developed a diagram which illustrates the control of deduction and induction of the reader by

indirection (shown below). This diagram, like all non-traditional text, must be read quite differently than the traditional textual sign. Traditional texts, read from left to right, have created expectations in readers, whose experiences with reading (in most cultures) have encouraged them to think of text as a line to be followed left to right in order to follow a writer's train of thought. Because diagrams (graphs and charts) differ from this traditional means of reading, scholars and writers might enlist the following means through which to control a reader's reception of the message:

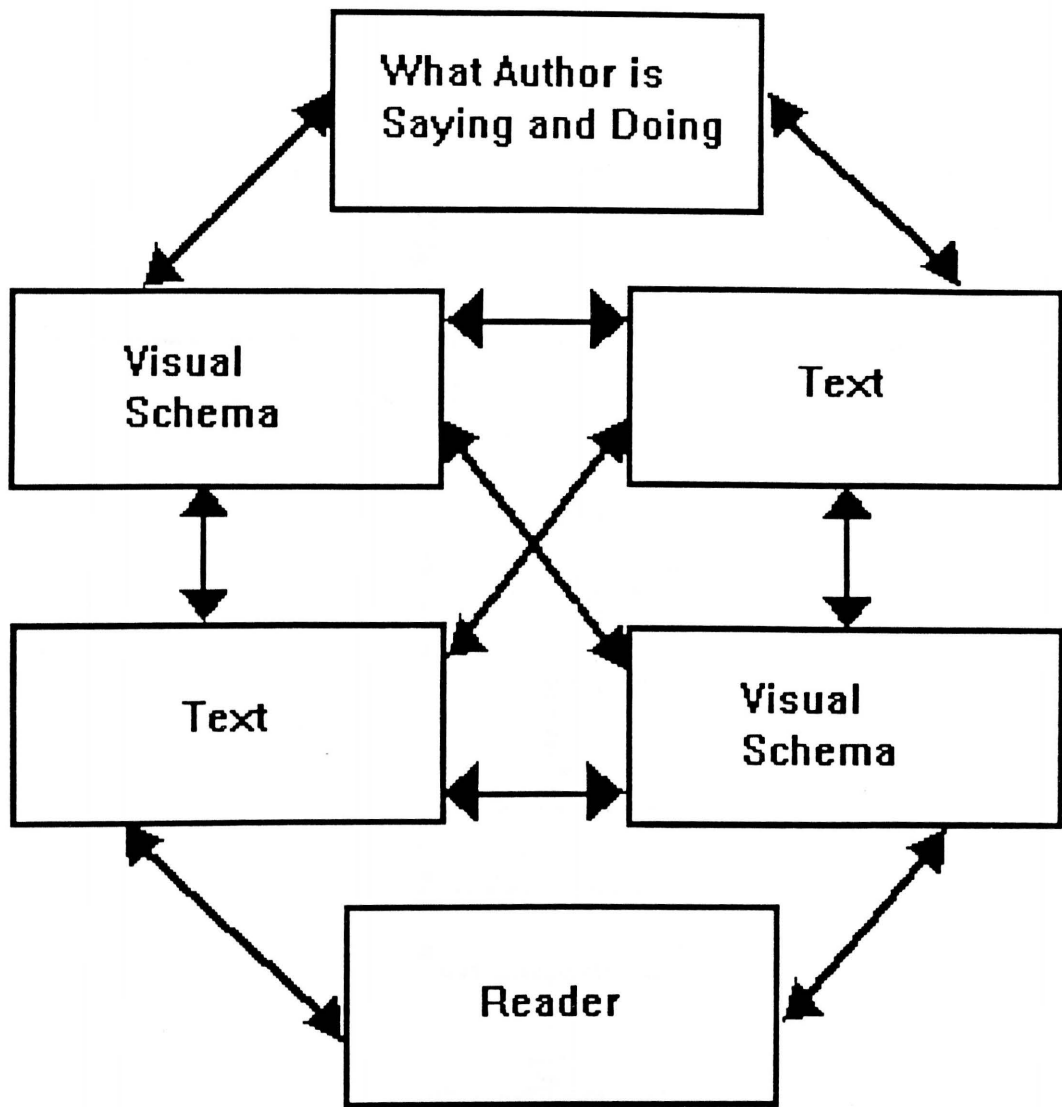


Fig. 4.15. Visually Directed Discourse. Reprinted with the permission of Speech Communication, Assn.

Kostelnick, too, has shown how arrows may be used subtly to color the reader's perceptions. His illustration, adapted below, demonstrates the use of arrows and boxed text to indicate parallelism. Visually, these boxed titles are all on one line, evenly spaced one from the other. Arrows move laterally along this horizontal line

(the most stable of all lines), leveling the status of upper and lower echelon organization members by giving equality of positioning to all.

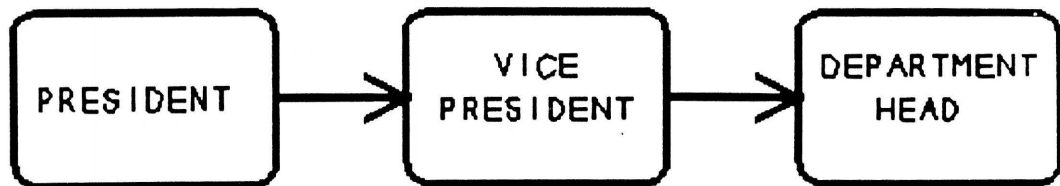


Fig. 4.16. Parallelism. Source: Charles Kostelnick, "The Rhetoric of Text Design in Professional Communication."



Fig. 4.17. Rigidly Defined Power Structure. Source: Charles Kostelnick, "The Rhetoric of Text Design in Professional Communication."

Figure 4.17 displays a visual order which ranks these same members of an organization in a very different manner. Arranged vertically, it conveys through

visual coding the "rigid divisions" of the corporate power structure (195). This arrangement "reinforces the differences in rank among employees" (195). Here, boxes with heavier lines (than those in Figure 4.16) accentuate the enclosed nature of text and titles, further emphasizing the degrees of separation between ranks.

Density of line in this example is expressive of the emphatic division between corporate spheres. In other contexts, however, lines may also function as directional indicators, compelling the reader's eyes along a predetermined path which has been selected by the encoder. A horizontal line may serve to indicate balance and harmony, while a diagonal line can convey dynamic qualities about the text.

Fusing the Textual Sign

Kostelnick's supra-textual qualities are those which affect a "document globally, from page to page and section to section" (196). These may also be divided into three groups: alphanumeric, spatial, and graphic.

Alphanumeric cues such as section headings, headers and footers, and tabs are textual devices which structure the text rhetorically. As mentioned above, headings serve to divide areas of text visually. At the same time, headings are visually cued (in size and parallelism, for instance) to alert readers to textual associations of materials. Headers are another means of tying closely associated materials together. These are frequently used on the top margins of a book's pages and may contain ruled lines that extend across a page's width with text either above or below, containing

such information as names of articles and their authors (and perhaps page numbers, as well). But they also lend cohesiveness to a textual sign by adding balance and definition and by providing a sense of uniformity and continuity to an entire publication (and to consecutive volumes of a multi-volumed work).

Space

Spatial considerations dictate page size and orientation and the placing of extra-textual materials (196). Page orientation would ordain whether a book's (or document's) pages were used in a portrait orientation (which is shown in Figure 4.18 left and is the standard vertical posture) or whether they were used in a landscape orientation (which shown in Figure 4.18 right and turns that standard page to a horizontal position). A publication—a book, for instance, could use either of these two orientations or a combination of both. Page sizes could be adjusted to any number of sizes to enhance the textual message. Figure 4.19, below illustrates how page orientation may be used, but it also reveals how graphic cues influence textual reception.

Other spatial configurations have to do with a variety of considerations. Two of these, spacing between letters and between words, have already been discussed in the section pertaining to legibility.

Columns widths and gutters are also meaningful. The number of columns on a page can range from one the several. Gutters are those vertical rows of open space

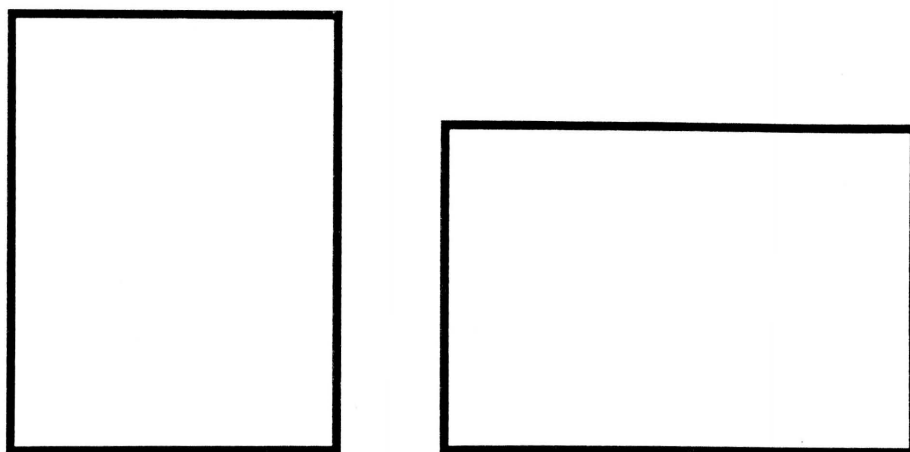


Fig. 4.18. Portrait (Left) and Landscape (Right) Orientations.

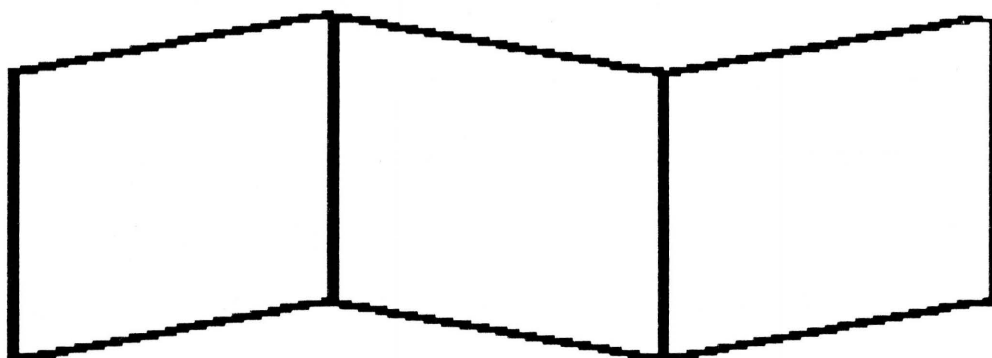


Fig. 4.19. Tri-Fold Orientation.

that visually divide columns of text. The number of gutters on a page is dictated by the number of columns. As type size increases, these gutters must become wider to

prevent readers' eyes from continuing across them and into the text in the adjacent column. Too much gutter space is equally disconcerting for the reader. Such space causes visual holes and interrupts graphic and textual flow.

Although the pages of most books contain only one column of text, the single column can be manipulated in such a way as to leave broad margins to either the left or right of the page. Such a configuration would create narrow columns of text, while at the same time creating columns of white space. The columns of white space would lend visual balance to the page but could also contain visual codes that enhanced linguistic signs.

Empty space surrounding the text is also important. Margins enclose text at both top and bottom and at left and right; they signify beginnings and endings of lines. But the empty horizontal space which is left between segments of material is also vital. When consistent, this enhances the *ethos* of the scholarly self-publisher. Roger C. Parker declares that, "Readers notice even the smallest variations in spacing. Inconsistent spacing can brand . . . work as careless and unworthy of serious notice," (197) which gives readers the impression that the message is not important.

Color

Though few scholarly self-publishers possess the means to incorporate color into most of their documents (though prices are becoming more reasonable for color

printers), this is a factor which has rhetorical repercussions. One of the most effective of all the visual elements, color is expensive to produce on the printed page, even when it has been created via computer. The cost of producing publications containing color therefore can be prohibitive.

Color affects people physically. Red raises blood pressure, increases appetite, and raises body temperature. Pink can have a calming effect, as can green. Red and green placed in close proximity, however (because they are complements), can set up disturbing vibrations in the reader's vision. They can cause the reader to see after images (illusionary images which linger on the retina microseconds after an object is no longer being viewed), and because they may make the reader dizzy, these colors can be responsible for a reader's sudden disinterest in a text.

Color also can have positive effects. Like space and headings, it can serve to connect related ideas within a text (and across multi-volume works) in some discourses, though it can be inappropriate in others. In discourses which may be used randomly, color can be used to code information through the colored bars, dots, or text. In discourses which demand sequential reading, however, coding of this kind would be of little value (perhaps a hindrance) to a reader.

The background color of frames which enclose texts can also influence textual signs (see Figure 4.14). Backgrounds may be shaded or colored, but shading, when very dark, necessitates reversing the linguistic text to white, thus making reading more difficult. Reversed text on a black background places stress on readers' eyes,

because it is more difficult to distinguish than text set in black typeface on a white background.

Conclusion

Only within the last few years have scholars and other writers had control over such devices as those discussed above. Only recently have scholars and writers had technology available to them which has enabled them effectively to own the printing press and take control of their discourses.

Many scholars and writers have failed to adjust their perceptions about computers, continuing to compose on them as if they were little more than glorified typewriters. Universities have continued to insist, even in rhetoric programs, that students' dissertations be created using typewriter technology, though most of these students have technology available to them with which to create much more sophisticated documents, documents which are rhetorically charged through visual enhancement and which have all the earmarks of professional publications. Universities have continued to demand that students' dissertations be created using such typewriter technology as underlining for items which would ordinarily be italicized, even in the face of research which has argued that "underlining undermines readability" (Parker 197).

Texts created with typewriter technology continue, in this way, to limit the writer's control over the medium; they fail to successfully adapt *all* elements of the

rhetorical canon and so constrain the writer's effectiveness.

Robert J. Connors has praised composition studies for having successfully adapted most of the rhetorical canon. Significantly, however, he has also bemoaned their failure to adapt those two very important ones of memory and delivery. Arguing for the incorporation of these last two elements, he has pointed out that delivery has "to do simply with the manner in which the material is delivered." He argues that "In written discourse this means only one thing: the format and conventions of the final manuscript as it is sent in, handed in, or given up" (64). In other words, delivery refers to visual considerations such as typography, which prior to computer technology, was available only to those who could manage the publishing process.

As Connors has written, typewritten script, created with typewriter technology (which changed very little from 1900 to the present), gave writers few options typographically. The typewriter could produce only one font: American Typewriter. This font could be ordered in either Pica or Elite (65), but it was not an exciting font as the following example demonstrates, and it gave the user no power over the linguistic sign.

The typewriter limited the writer's control over typeface.

Fig. 4.20. Limitations of Typewriter Technology.

The above sentence is set in Courier, a type that is very similar to the old American Typewriter. Computer technology produces a variety of type sizes and styles. Figure 4.21 illustrates Times 10 (type is measured in points from size 6 to sizes as large as 72). Point size used in this dissertation is 10. Figure 4.21 reveals that point sizes do not remain uniform from one type style to another.

This font can be **boldfaced**; it can be changed in point size.
 The typewriter limited the writer's control over typeface.
 But this type can be *italicized*, *m a n i p u l a t e d* , and ~~changed~~.
 The typewriter limited the writer's control over typeface.

Fig. 4.21. Some Font Options Offered Through Computer Technology.

But just as visual qualities influence reception of text, text, too influences reception of visual cues. Rosemary E. Hampton, using the work of George Yoo (see Figure 4.15), has shown graphically how text influences interpretation of specific visual signs.

One of the several rhetoricians who has commented upon the way that visual qualities affect textual signs, Rosemary E. Hampton argues that visual schemata and graphics are rhetorical and metaphorical. They are valuable tools, she contends, in "intention, teaching, and persuasion" (347). Stephen A. Bernhardt, another rhetorician, writes that "The physical fact of the text, with its spatial appearance on the page, requires visual apprehension: a text can be seen, must be seen in a process which is essentially different from the perception of speech. The written mode necessitates the arrangement of script or typeface," he continues, "a process which

gives visual cues to the verbal organization of the text" (66). A printed text, linguistically coded though it may be, is one which, by its very essence is a visual medium. Therefore, it must be treated as a visually perceived instrument. Being seen before it is read, it must possess qualities which compliment and optimize the way in which its linguistic counterpart is received.

Perhaps more than any other element in the rhetorical canon, delivery is particularly important in creating the sign of the text, the dialogical context. The signifying choices made by the encoder of a particular text may be enhanced, emphasized, altered, or denied through choices made about visual qualities of textual layout and design. Because of this, a scholarly self-publisher who creates the textual sign now needs to give as much attention to the visual characteristics of a text as that given to its linguistic structure. Rhetoricians must now understand how the human mind responds to pattern and use this information in the delivery of their textual signs. By taking control of visual coding through the process of self-publishing, scholarly self-publishers not only create the sign of the text, but they also take control of the subtle messages which may be embedded in the textual message through visual delivery.

CHAPTER 5

ELECTRONIC TECHNOLOGY AND RHETORICAL EMPOWERMENT

Every technology contrived and outered by man has the power to numb human awareness during the period of its first interiorization.—Marshall McLuhan.

Since its invention, the computer has been perceived by many as an extension of the human being. With the potential for Artificial Intelligence (AI) all but realized, the computer moves closer to becoming not merely an extension of humanity but a metaphor for humanity, as well.

The computer's faculty for producing information and discourse is virtually limitless. The ability to reason, an arena formerly attributed to human endeavor alone, is coming under the domain of computer technology. With the computer and AI, an attempt is underway currently to duplicate the human capacity to reason and make logical assumptions. Scientists have become concerned in the last few years with finding ways in which the computer can frame and represent information. They are interested in the computer's problem-solving applications, in understanding how the computer can "see" the world, in how it can "communicate in natural language, and even infer new knowledge [i.e. information]" (Rosenberg 35). Scientists who are concerned with an increasing use of logic as both a representational and computational language are currently working with expert systems in order to "educate" computers,

giving them the capacity to make logical deductions using knowledge gained from experts in discrete fields.

The most popular programming language in the scientific field, Prolog, is one language available to scientists for use in AI. There are many others. Prolog has a built-in problem solver based on formal logic, called logic programming. By using an added control structure, Prolog attempts to take the passive language of "traditional logic and transform it into a problem solving language" (Krueger 37). Current research, however, has targeted other means of making problem solving more efficient (Krueger 37).

With AI nearing reality and with the emergence of such new technologies as hypertext, hypermedia, and Xanadu (which are explained below), the computer moves ever closer to becoming the center of information in a shift that was foreseen by Michel Foucault. In Foucault's vision of changing human perceptions, humanity moves slowly away from the idea of knowledge being human centered. As this happens, a new and different means of creating information (the computer) replaces the older paradigm, the paradigm that has been active for the past few centuries (1970, xxii, xxiii, 217).

As the computer's potential for the production and transferal of information gains in momentum (as with e-mail), humanity approaches what Marshall McLuhan has called the "final phase of the extension of man—the technological simulation of consciousness, when the creative process of knowing will be collectively and

corporately extended to the whole of human society . . ." (1964, 3-4). This technological consciousness, which may be seen in technology of the Internet and its assorted webs, now connects computers (and their human counterparts) around the world. Foucault also predicted this shift in the construction of epistemological formations. In Foucault's vision, the concept of man as the center of knowledge or information (and by a continued extension of Foucault's theory, the center of power), a concept formulated in the Renaissance, is shifting to one in which electronic technology is at the center of information production (1970, xxiii, 217).

Foucault has seen an intimate and unalterable relationship between knowledge (information), power, and discourse. He has commented that relations "of power cannot themselves be established, consolidated nor implemented without the production, accumulation, circulation and functioning of a discourse" (1970, 217). Power, as propounded by Foucault in Power/Knowledge: Selected Interviews and Other Writings 1927-77, involves the creation of knowledge (51, 52). In Foucault's construct, this creation happens in two ways: power operates to determine what kinds of discourses will be viewed as legitimate and valid, and at the same time, dictates which subjects are to be rendered invalid and which are to be accorded the status necessary to have their discourses valued (51, 52). For the sake of the argument put forth here, power refers to the power to publish, the power to become a part of a dialogical context. Large publishing houses and university presses have commanded this kind of power in the past, but scholars can usurp this power through the

self-publishing process.

That power functions to create dialogical contexts is further exhibited by the United States government's attitude toward AI research. Because the government had been involved in AI research, it has been mindful of technological developments. It afforded the means through which a new discourse, AI, could be imagined, developed, and brought into being. Through the act of creating a context in which a new discourse could be born, the government could appropriate the power of that new medium and make that power and medium its own.

Publishing, the primary means through which scholars become a part of the dialogic community, has become increasingly difficult for scholars through traditional publishing mechanisms. Scholars who do not have this power will be isolated from the communities with which they must interact if they are to survive as professionals. Without the knowledge and power to self-publish their own discourses, whether in traditional book format or on electronic networks and webs, these scholars (some of whom may now be producing extremely significant research) cannot join the community of scholarly and other dialogical constructs. Their discourses will therefore remain mute.

Computers and desktop technology allow scholars to self-publish. Such technologies are recognized means for distributing information and for creating power and discursive formations. Computers are intelligent machines, and because of their phenomenal capabilities, they command the awe, respect, and admiration of millions.

The operation of such intelligent machines endows users with greater *ethos*, particularly with those audiences whose knowledge of such technology is limited, because users are perceived as having access to information and power that is unavailable to non-users (generally a viable belief).

Sherry Turkle has theorized that computers provide a metaphor for self identity. She has speculated that computers allow people to reassess and enlarge on their own identity and worth, because these tools provide metaphors for thinking about the self (191). Computers affect people's lives as no other machine ever has. Turkle comments: "What people do with computers affects the way they see the world. . . . People use a discourse about computers for thinking and talking about other things, about politics, religion, education, and about themselves and other people " (182).

Following Turkle's reasoning, most thinkers would agree that the computer is itself a form of discourse, that it is a discursive formation. With its ability to perform intelligent tasks that earn the respect, attention, and admiration of users, computers command power as no machine has ever commanded it before. Those who use computers, such as scholars, are empowered with all the electronic facets, networks, and data which may be theirs through the technology of the computer.

Further advances in technology promise to enhance the power and reach of computers and those who use them. New technologies such as on-line networks, hypertext, hypermedia, and all-inclusive databases like Xanadu promise to enlarge and

extend the power that is now available to anyone with sufficient resources to operate this technology. Opportunities are increasing rapidly for interfacing with world-wide networks. The implications for the creation of valid, persuasive, indeed, unending discourse, through the mediation of the computer, electronic media, and hypertext/hypermedia seem implicit.

Computers have become vital components of people's lives. They inhabit almost every home, office, and school in the nation, and they are almost as prevalent in many other nations of the world. As their presence has proliferated, their influence over people's lives, and their franchise over information and discourse, particularly in America, has increased accordingly. American society, as Turkle has observed, really can no longer be understood by those who lack knowledge of computers (193).

Though many recognize that computers have merit, not all acknowledge the computer's potential in the areas of information and discourse. Those who fear or misunderstand computer technology have attempted to halt its advance by employing the very technology which they have hoped to undermine. By adopting the technology which they have fought, these people have advanced its acceptance. This phenomena has been pondered by Walter Ong, who theorizing on this phenomena remarks: "Once the word is technologized, there is no effective way to criticize what technology has done with it without the aid of the highest technology available" (1982, 80). Attackers of a new technology become, by virtue of their adoption of the use of the technology which they are attacking, not merely instruments through which

its continued use and advance is assured but also accomplices in the promotion of its power and usage (80). As this dissertation is written in the closing days of 1994, for instance, many colleges and professional associations continue to issue outmoded guidelines to writers of theses and dissertations which ignore word processor features that perform such simple tasks as italicizing book titles. Instead, they require the continued use of typewriter technology. Many universities continue to stipulate underlining for items such book titles and foreign terms, items that ordinarily require italicizing. In these requirements, universities have attempted to deny, halt, ignore, or negate the validity and power of computer technology.

Yet the computer, with its speed, precision, and its capacity for electronic storage and retrieval of information in heretofore unheard of density, and its capabilities for the creation and dissemination of discourse, is a resource with applications that have hardly been imagined. The protean nature of the computer, as Alan Kay has observed in "Computer Software," "is such that it can act like a machine or like a language to be shaped and exploited." Kay argues that "It [the computer] is a medium that can dynamically simulate the details of any other medium, including media that cannot exist physically." He points out that "It is not a tool, although it can act like many tools. It is the first metamedium, and as such it has degrees of freedom for representation and expression never before encountered and as yet barely investigated . . ." (59).

It seems incumbent here to define several terms that will be used in this

chapter. Hypertext, which will be discussed later, has been defined by Emily Berk as "The technology of non-sequential reading and writing." She has maintained that "Hypertext is technique, data structure, and user interface" (543). Electronic journals, discussed below, in fact, could be defined as a form of hypertext, in that they are non-linear and their text non-sequential.

Through hypertext, users have the ability to scan, manipulate, and interact with a text that is no longer sequential, paper-based, or linear. (In fact, many users feel that hypertext is definable only as on-line text.) Soon, rather than needing books or hard copies of any kind, users perhaps will need only a computer (equipped for hypertext/hypermedia), a fax/modem, and a telephone in order to access information from anywhere in the world.⁴

Electronic journals (E-journals) should be discussed here, also. These serials and periodicals are published and distributed via electronic networks to both national and international users (Galloway 1). Readers who interface with electronic journals, contrary to those who use hypertext, cannot interact with them in the same manner as is possible with other hyperdocuments; their interface is limited. Originally few in number, these journals have proliferated at a phenomenal rate, giving users a much

⁴In 1982, Walter J. Ong argued against the demise of the printed page and the printed book. Though Ong has recognized, predicted, and analyzed much pertaining to the importance and influence of electronic media, he nevertheless has contended that such media as electronically taped books along with other electronic devices would never eliminate the printed form. Ong has asserted that a new medium "reinforces the old, but of course transforms it because it fosters a new self-consciously informal style . . . (1982, 135-36).

broader information base. The success encountered by this electronic counterpart of the paper-based journal and other materials seems eminent and powerful. For instance, in July 1991, there were only 110 electronic items listed in the Directory of Electronic Journals, Newsletters and Academic Discussion Lists. In late 1992, just a few months later, there were more than 700 electronic items (1). Through such technology, information from all over the world is available, literally, at a user's fingertips.

Any of these same journals might also be considered a limited form of hyperdocument, which is a product of hypertext. Harold Berk has defined a hyperdocument as "one specific hypertext document made up of interlinked pages or 'nodes'" (542). The terms hypertext and hyperdocument are used interchangeably by many.

Xanadu, a system based on extremely broad client/server model, is another technology that needs to be described.⁵ First conceived in the 1960s by Theodor Nelson, the man who invented hypertext (Emily Berk and Joseph Devlin 14), this technology was perceived (and perhaps still is) by many to be an impossible dream, because Nelson envisioned Xanadu as a database incorporating all information. Nelson sold this invention in 1988 to Autodesk, Inc., who reportedly has been on the brink of releasing it to the world for the last two years (Harold Berk 524). As

⁵Though no database can include all information, the creators of Xanadu hope to "solve the problems of inefficient information access, retrieval, and management" (Harold Berk 524).

planned by Autodesk, Inc., Xanadu would support text, graphics, audio and video data forms. It would "provide access via a link to any and all chunks of data. Each chunk can be as small as a pixel or as large as a library (524-25)." Xanadu would offer unlimited linkings, which, created in Xanadu, would be automatically omnidirectional. Xanadu would also have powerful filtering mechanisms and would even offer a variety of platforms (525).

With accessibility of an on-line, world-wide information such as Xanadu (524), and that of on-line services listed below, humanity seems to be nearing its own ultimate replacement. Humanity and its cultures seem to be very near the shift, envisioned by Foucault, to a world in which computers and their associated technologies—as epistemological frameworks—will replace mankind as the new center of information.

The Internet

Though Xanadu is not yet operable, other databases are now on-line. Through the on-line services of Internet, Bitnet and World-Wide Web, a user may access libraries and data banks throughout the area and the world, and other sources are coming on-line almost daily.

Harley Hahn has called Internet the "greatest and most significant achievement in the history of mankind" (Hahn xix). For Hahn, one of the authors of a reference guide for using the Internet, this proclamation seems true because his long experience

with Internet has allowed him to observe Internet's phenomenal growth, proliferation, and potential. The Internet, within just a few years, has connected millions of people throughout the world and has changed the world forever.⁶ Though the number of users of the Internet grows daily, the number of sites obtainable to these people grows at an equal pace. The Internet never seems crowded for this reason.

The Internet, a group of worldwide information resources which, through computer and modem, links vast audiences with vast amounts of information (2), developed from a group of networks that were initiated in the 1970s. These grew from and outmoded the Department of Defense's Arpanet (2) and now connect computers and people with vast amounts of information to the "first global forum and the first global library" (3); it never closes; it is open to anyone who wants to communicate at any time, anywhere in the world.

The Internet, which may be accessed from a personal computer, functions to send or receive information. Writers utilize this technology to send information to readers via e-mail. Writers provide information, whether in the form of articles, books, electronic magazines, or informal discussions, for use by readers, who may search further afield (for other, related or non-related information) through computer hookup to another country (3).

⁶For a good introduction to using the Internet, see "Making the Internet Connection." PC Magazine. 11 Oct. 1994: .

Internet Services

Basically four services make the Internet attractive to users. The first is a mail service which manages and routes electronic mail (e-mail) between writers and readers around the world. The second, Telnet, assists in establishing terminal sessions with computers at remote, even foreign locations. FTP (file transfer protocol, known, too, as downloading), the third service, makes the transfer of files possible from one computer to another. The general client/server service, which is the last service, allows users to make requests through a client/server program. Gopher is such a system; it displays a menu, allows a user to make a selection from that menu, and then it connects the user to an appropriate server (20).

Internet users may send to and receive from others on the Internet, as well as from users on CompuServ and MCI Mail. Because anything can be mailed that can be stored in a text file, scholars who self-publish might choose to publish electronically, as well as in traditional paper format. But an electronic file is particularly appealing, because once created, it can be telneted quickly to any place in the world.

Users of the Internet identify themselves with a userid (pronounced user-eye-dee), an identification password by which they are known and through which they are charged for their use of the Internet. Some systems are public service systems which anyone can access with special guest accounts. These accounts require no secret codings and can be used without charge (21).

Electronic media extend the individual's growing command of systems throughout the world and allow communication with other users at any time. Besides e-mail, another, more recent innovation has emerged: m-mail. M-mail (multimedia-mail) is similar to e-mail, but it has the added features of sound: voice and graphics. Though m-mail can be simple, text-based notations, it has the capability of producing sophisticated motion video with narration, as well (Thompson 47). Both of these systems, while allowing for user interaction, allow for the creation of especially powerful forms of discourse. These systems, while creating the illusion of private communication, also create the possibility for surreptitious invasions of user privacy, which would not exist as easily in traditional mail systems (Levin 224) and which raise questions of ethical standards and behavior, questions which have not as yet been fully addressed. These discourses are vulnerable to those who would seize opportunities for electronic eavesdropping, but they are also vulnerable to those who would infringe on materials which lie within an area not yet clearly defined by copyright laws.

Bitnet

Bitnet, another worldwide network separate from Internet, serves the academic and research communities globally. Bitnet had its origins at City University of New York and was named with an acronym: "Because It's Time Network" (Hahn 520). Mail cannot be sent directly from the Internet to Bitnet, though it can pass through a

Bitnet/Internet gateway (computers which serve as intermediaries), connected to both networks. Harley Hahn has given the following scenarios for mailing to Bitnet via Internet: "we would . . . send a message to a gateway and tell it: 'Please take this message and pass it to the Bitnet computer named **psuvm** and, once there, have that computer deliver the message to **lunaea**'" (523).

World-Wide Web

Sometimes called the Web, this network, like the Internet, offers scholars a venue in which to publish electronically. This dynamic process creates contexts in which scholars might interact with others in interactive, electronic publishing projects. The Web, based in the same idea which gave impetus to hypertext, is navigated with the assistance of a program called a browser. Though the Web is like hypertext in that links provide users with keys to other levels of information, the links embedded in the Web are highly sophisticated (Hahn 496). Links in a Web document can contain more than simple text; they can lead a user to visual materials that can be displayed on a user's monitor. Links which make the Web particularly powerful and exciting for the scholarly are those which allow the user to go to any type of Internet resource. With these links, scholars may follow the links which are most appropriate for their particular applications.⁷

⁷The World-Wide Web, a graphical subsystem, has been referred to as the "hot ticket in the Internet world" (Dvorak 89). This same Dvorak also warns of the lack of any monitoring or controlling system on the Web (also know as WWW and W3)

Electronic Publishing

A recent article in PC Magazine has described the various platforms which currently support electronic publishing. Of those discussed, portable documents; hypertext; Standard Generalized Markup Language (SGML); and Hypertext Markup Language (HTML), the newest, HTML, seems to have greatest potential.⁸ Lori Grunin has called HTML the "current technology of choice for publishing on the Internet" (1995, 112). HTML, the only platform which will be evaluated in this dissertation, is a language understood by "browsing programs that read the Internet's World-Wide Web" (González 156). HTML is available in a number of applications: shareware, freeware, and commercial. Any of these assist in creating "Home pages and full-blown documents for publication on the Web" (González 156). HTML's value to an electronic publisher is that it can be linked to "any other document or element on the Web" (156). HTML, available in four level of compliance from 0 - 3, proffers the potential electronic publisher interactive form support in Level 2; and Level 3, not yet available, promises even greater support (González 156). For the scholarly self-publisher, this platform has major ramifications, for such a platform

and points out that there are too many sites, where information is months old, which are not maintained. Dvorak's voice, that proverbial cry in the wilderness, cautions that all the "time wasting, money wasting, information overload, Web hackers, and false promises" (89) could cause the Internet to "take a serious tumble" (89). Though his experience foretells the continued use of on-line computing, he is sure that "disappointment lurks" (89).

⁸Descriptions of the software which these platforms support were also included in the article.

provides unlimited access to almost any discourse. Additionally, this technology offers the scholar a range of tools which do everything from checking spelling to automatically correcting errors with the use of a filtering system. Electronic publishing is an open field, and HTML seems to furnish the platform which will eventually eliminate many extant problems in the area of electronic publishing. Rick Ayre and Kevin Reichard have suggested the simplicity of creating an electronic publication using HTML by postulating that publishing on the Web "requires little more than a touch of formatting with HTML" (173).

On-line networking systems, such as those discussed above, have opened up unimaginable possibilities for creating discursive formations (with the same number of accompanying problems). Using some of the resources available through these systems, for instance, students registered at the University of Phoenix in San Francisco may "attend" classes from anywhere in the world. Students and professors communicate via computer and modem. Lectures are visible on screen, and students participate by contributing their comments to a communication thread, which in turn is appended by others (thus creating hypertext). Even when students travel, they may stay up to date through the use of laptops and portable modems, for even though this "virtual classroom" is removed from the student's environment, daily and weekly assignments are collected via modem and conferencing systems. Such on-line classrooms seem to be the wave of the future. Convenient and efficient, on-line classrooms are quickly becoming more readily available and more viable. On-line

degree programs were offered in 1994 by the New School of Social Research, New York; Purdue University, West Lafayette, Indiana; Boise State, Idaho; City University, Bellevue, Washington; and Nova University, Ft. Lauderdale, Florida (Free 38). Some members of the Women's Caucus for Art (a national organization of women in the visual arts professions) will exhibit works via on-line network during the 1995 United Nations world conference. These exhibited works, using on-line networking, will be shown simultaneously in several cities around the world.

With the advent of world-wide electronic media, the power of nations who are technologically advanced increases toward an awesome potential. The rift between the "haves" and the "have nots" necessarily widen. The applications of the term "haves" in this instance has nothing to do with monetary means. Instead, the term is applicable to those who have the technological know-how and skill to find new and creative applications for the technologies which we now possess and for the new ones which will be available in the future. Technological applications referred to in this context do not signify the simple use of word processing or simple programming; such applications, instead, refer to creating new spaces in which new discourses and information can emerge. Such applications infer the creation of synapses in which there is the possibility for the production of a new epistemological framework within the overlapping space created by the combining of two previously existing ones.

Such sophisticated systems as those discussed herein allow for the dynamic interaction of human beings; they allow for the creation of a dialogic context in which

scholars may engage in an exchange of research and other information. These systems have the capability to not only place vast amounts of information within the user's easy reach, but they also allow for the manipulation and enhancement of that information as well.

Though policy changes are causing commercial and university presses to close their doors to many hopeful scholars, computers and their associated technologies are opening exciting new ones. Systems described in preceding paragraphs permit scholars who choose the self-publishing process to (1) identify other, like-minded scholars (via the Internet) with whom to join forces in publishing projects; (2) view, discuss, change, and exchange manuscripts, through the use of networks and interactive documents; (3) pinpoint specific avenues for the distribution of messages and information about publications; (4) identify, manipulate, and control research (some of which might be imported into scholars' files via Internet) and information which might be vital to either their own messages or to their knowledge of self-publishing. By employing technologies which are currently available to them, scholars may assume complete control over every aspect of a message's creation, design, layout, publishing, pricing, and distribution; they may choose whether to publish their documents electronically or in traditional paper format.

On-Line Programs

Through the use of hypertext, described as a system that works in much the

same way as the human brain, scholars may take more control over materials and information; they can choose paths through copious amounts of information. Additionally, as this possibility indicates, the hypertext document may be a cooperative effort in that it may be constructed by both the scholar and a vast array of audiences (Berk 5), audiences which might vary in intellectual levels from elementary school children, seeking rudimentary tiers of information, to college and university audiences seeking more complex information structures (via links embedded in the document) within the document. Audiences no longer "read" hypertext in the traditional way. Instead, they navigate, using links which connect with related material, through a hyperdocument, which has neither beginning nor end. The responsibility for this navigational exercise no longer belongs totally to the writer. With hypertext, the audience may create navigational routes, too (550). Using nodes which serve both as containers of information and as addresses of a link (551), audiences may either use pathways available to them through the writer's plan, or they may elect to construct new pathways to information that relates to a particular subject. Links, which serve as pointers from one hypertext node to another, alert users of relationships existing between the source node's link and its target node (544). Users (or audiences) of hypertext have options; they may choose, by selecting specific links, which paths to pursue as they peruse a document. By choosing particular paths, audiences select specific segments of a hyperdocument and follow that to other informational routes. Though hyperdocuments offer choices to

audiences, these choices may be manipulated and controlled by the computer and the document's writer.

Hypertext, usually thought of as an on-line document only (made up primarily of text alone), is less sophisticated than hypermedia. Hypermedia, a technology in which "computer-mediated storage and retrieval of information [is accomplished] in a non-sequential fashion" (543), comprises not only text but also sound and imagery. As the name Hypermedia indicates, this technology devises links "through material stored in . . . text, graphics, sound, music, video, as well as composites of these" (543). Readers have the ability to navigate textual information and visual images, provided by both hypermedia and the simpler hypertext. Interactive interfaces, they thus "enable the 'reader' to rearrange the material. . . . [W]ith full user control" (543). Documents perceived as genuine hypemedia, provide tools which allow for the interaction described above. In yet another view, hypermedia has been defined as an application which allows users to create individual "non-linear paths through images, sounds and text" (Picher 23). To describe hypermedia somewhat more simply, it accesses a range of data files; it incorporates the integration of sound, visual image, and space, either singularly or combined, within the hyperdocument. Such a technology has applications that are virtually impossible to imagine at this point. Hypermedia, like many other advanced processes, will reshape people's lives as they find increasing applications for it.

Computers: Software and Peripherals

Few would argue that electronic technology is currently reshaping the culture. In an extremely short time, computers have changed the way people think about writing, working, socializing, and communicating. Computers have even changed the rhetorical process. Electronic technology has insisted that every element of the rhetorical canon be reinterpreted. Recently several new writing programs with limited inventional capabilities have been introduced to the market. These prompt writers (with phrases or sentences) who then extend the text. Arrangement, the second element in the rhetorical canon, has undergone some reinterpretation addressing the computer's capacity to move blocks or units of text. Templates in many computers even order and create outlines for writers. Technology is also altering writing styles. By offering grammar and spell checkers to writers, technology offers inexperienced writers possibilities for improving writing styles. Memory, so important in ancient times, is now left to the vast capabilities of electronic media. Computer memory is fast, accurate, and if saved to taped back up, nonfailing. Delivery received perfunctory treatment by Aristotle; and even Quintilian, though he understood its importance, gave it little play in his work. The Renaissance did little better by delivery. Renaissance concern centered upon enumerating tropes and figures. Delivery has become, in the twentieth century, an extremely important element of the entire canon. Electronic technology has presented writers and publishers with possibilities for the total delivery of messages. With computers and

their associated technologies, writers potentially own the printing press and are empowered to create, manage, design, manipulate, print, and sell their own messages. With these technologies, writers have total control over how their messages reach their audiences. Writers are limited only by their own abilities with electronic technology and by their own imaginations.

The publishing environment, like the rhetorical environment, has been forced to adapt; both are integrally related. With computers, word-processing programs, graphics programs, desktop publishing programming, and peripherals such as laser or inkjet printers, modems and fax/modems, scholars who have been witnessing the demise of traditional publishing channels have also been witnessing the emergence of new, exciting technology which allows them to publish and at the same time maintain complete control over the rhetorical aspects of their messages.

Word-Processing Software

The authors of PCs for Dummies have alleged that 70 percent of all computers are used for the single purpose of word processing (232). This software has imbued writers with electronic tools with which to manage the writing process. With this software, writers can block, move, delete, and change text in seconds—even in the last seconds before a document (or book) is due to be printed or published. Writers can then store documents on their computers' hard drives, on floppy disks, on taped back-up, or on chips.

Word-processing software (or programs) such as WordPerfect, Microsoft Word, and Amy Pro (the three top programs) enable writers to create text files which they can export via fax/modem, modem, or disk into an editor's computer to be incorporated (and even translated to compatible software, if necessary) into desktop publishing programs or to be published electronically via a network. Currently, many word-processing programs also have desktop publishing features. Word for Windows, Ami Professional, and even WordPerfect can handle the needs of many who want to try self-publishing. WordPerfect 6.1 for Windows, an update which appeared after Novell bought WordPerfect, has edit-in-place applets, for charting, drawing, and font special effects (Mendelson 40) to customize formats (40). A writer may scan images directly into a document and, with the use of the mouse, place these into a graphics box (40). This program handles international languages reasonably well, while its CD-ROM version, which responds to voice commands, indicates the future of word processing (Mendelson 40). Though WordPerfect 6.1 for Windows is an exciting program with much potential for the writer who would self-publish, the program's editor is not satisfactory for its graphics-based environment (40). The Reveal Codes window is awkward (40), and its file conversion system has been plagued with problems (40).

Though WordPerfect 6.1 for Windows is spectacular, it lacks features of sophistication possessed by the best desktop publishing programs. Because word processors are intended to serve primarily for text creation, they lack the special

graphic capabilities (though most possess some of these) of sophisticated graphic and desktop programs. Being text oriented, however, they have textual advantages not found in some desktop programs.

Programs such as WordPerfect 6.1 for Windows and Microsoft Windows offer scholars who would self-publish the advantage of spell checkers (though Microsoft Windows' word processor does not) and thesaurus, features which only lately have been added to some desktop programs (as have grammar checkers). Both the spell checker and the thesaurus are invaluable to a scholarly self-publisher; with them, the self-publisher (whose own work is probably flawless) may sweep for spelling errors through an entire range of imported files in seconds. Spell checkers catch most obvious misspellings as well as typographical errors, while the thesaurus makes finding synonyms less painful than the traditional means. Word processing software also stores textual documents, even after these have been coded, and thus contaminated, by a desktop software program. Desktop software programs are *prima donnas*; they store no textual documents.

Interestingly enough, word processing software differs in significant ways. All store their files differently, so word processing software manufactured by one company may not be able to read the files of a word processing software manufactured by another company. But almost all these programs can save text files in ASCII (American Standard Code for Information Interchange), which can be read by almost any word processing software (Gookin 233).

ASCII files are the logical means for incorporating texts contributed by a number of writers to a publishing project. Publications such as anthologies and monographs will be made up of files sent to editors via modem, fax modem, e-mail, or on disk. Files imported electronically may be read into editors' word processing software files with a certain amount of ease, if sent in ASCII, but through the use of translating software, the ASCII files can be translated from one word processing language to that used by the editor. ASCII files are helpful to editors/typesetters because they contain only "pure text, numbers, and common punctuation symbols," (54) but ASCII files do have drawbacks such as having no italics or headlines (54). If these files are accompanied by hard copies that have markings included, the editors/typesetters will experience little trouble inserting the codes demanded by their own desktop software. ASCII, which works so well for transferring text, does not work for graphics and similar files (54).

Different brands of word processing software possess different features, different advantages and disadvantages. With some, a writer can use specific kinds of style sheets, which can then be used, if these need to be disbursed to an extensive list of addresses, with a mail merge feature, which is a data file that merges names and addresses with the document on the style sheet for mailing (233).

Most word processing software packages are equipped to deal with foreign language symbols. All can handle manipulation of margins, boldfacing, italicizing; they also are equipped with a number of fonts which can be changed. They can

produce super and subscripts with little effort on the part of the encoder. Most have special functions that can be used to create tables of contents, indices, and footnotes.

Desktop Software

Ventura, PageMaker, Microsoft Word for Macintosh, First Publisher, and other desktop publishing software might be described as the logical extension of the word processing environment. Desktop-publishing software does more than manage words, however. With desktop-publishing software, a writer can add graphics such as photographs, clip art, charts, graphs, lines, headers, and footers. With desktop software, a writer can control leading, kerning, fonts, white space, and any of the other visuals that are critical to the way a message is delivered to a audience.

Desktop-publishing software and its peripherals, unlike word processing packages, were not "designed for composing words; they were designed for rearranging them so that the pages looked professionally published" (234). Desktop software, combined with the peripheral of high-quality printers have brought "publishing power to the masses" (234). Desktop software has bestowed power upon those who otherwise would be silenced by the closing of traditional publishing routes.

In most cases, word processing packages store text that is used in a document published via desktop publishing. Texts are created using word processing software, designed for this specific purpose, after which they are imported into the desktop program. There, after being translated into a useable language format, these texts are

professionally typeset using the variety of tools available in desktop programs: fonts, codes, style sheets, headings, and graphics.

Some word processing software programs are more compatible with specific desktop programs than with others. WordStar, for example, is more compatible with the original Ventura 2.0 than is WordPerfect. Codes used in a WordPerfect file to create diacritical markings are read as end-of-file markers after being imported into Ventura 2.0, a reading which changes the delivery of a message drastically. Later versions of Ventura addressed and corrected this problem.

Newer word processing packages possess many of the features formerly belonging to desktop packages only. WordPerfect 6.0 features Grammatik, a utility which checks not only grammar but also spelling and style, and which displays a window with a dialogue box citing problems along with suggested solutions. WordPerfect 6.1 for Windows has extensive features, is faster than 6.0, and requires little retraining for those who are already users of 6.0. Because of its "linguistic intelligence," which boosts "the power of document searching," (Mendelson 37) it handles complex search queries easily. It can search for multiple forms of a word, even synonyms and phonetic equivalents, which has moved it ahead of both Microsoft Word and Ami Pro (37, 40).

Graphic Software

Equipped with graphics software, a computer can be used to render

architectural and technical drawings; it can be used to flip, shade, enlarge, lighten, or otherwise manipulate an image. Equipped with a fax/modem, a computer can capture a file, copy the file to a disk, and transfer that file (via disk or fax/modem) to another computer which is not equipped with quality scanning software.⁹

Because graphic software allows scholars to add visual qualities to their documents, these programs assist in the enhancement of scholars' messages. They are therefore powerful couriers that herald the inference of these messages prior to the messages actually being read by readers.

In a 1994 article in PC Magazine, Lori Grunin has made several observations about the changing nature of desktop presentations (which are mainly graphic in content) and the way these exhibit a concern for delivery. The focus of the newest technology, she notices, has been influenced "more by psychology and sociology than technology" (257). In these few words, Grunin has underlined the changing perceptions regarding delivery, the importance given to the the visual presentation of materials. Although she has written that "psychology and sociology" have taken precedence over technological concerns, it seems that with the technological capabilities available at this time, technology is the window through which all other components must flow and combine. Her article seems to lend further credence to the call that scholars take control of the delivery of their messages through the process of

⁹Several images in Chapter 4 of this dissertation were assimilated into the document in this manner.

self-publishing. Grunin has suggested that the following products: Macromedia's Action! for Windows, Gold Disk's Astound for Windows, Asymetrix Corp.'s Compel, and Micrografx Charisma, are ones which "concentrate on providing tools that let you become a presentation publisher" (257).

In graphics programs, image editing is an extremely important function. Adobe Photoshop is the most popular application for use on a personal computer. This program enables a scholar to alter photographs and other scanned images in a variety of ways. Images can be retouched, colors adjusted, details manipulated and even exchanged with those of other images. A scholar can add text to images and even apply special effects.

Photoshop provides tools for retouching that are similar to traditional art tools. Pencil, paintbrush, and airbrush comprise the painting tools, but Photoshop also has six edit tools: smudge, rubber stamp, blur, sharpen, dodge, and burn. All of these tools mimic traditional design tools and can produce spectacular visual results. Another feature enables scholarly self-publishers to clone other areas of a work. Best of all, however, are the possibilities for integrating text and image with this program.

Text can be created with a variety of font sizes and styles. Translucency of type can be changed and merged with an image to create a subtle overlay effect. Text can be filled with an image. Drop shadow is an effective way to add depth and interest to a flat image.

Introduced to the market in 1994, Sharp's QA-1500 LCD is a projection panel

for making presentations. Weighing less than six pounds, this panel allows for the graphic presentation of visual information, and it does so without the support of a portable computer, which had been necessary until its introduction ("First Looks" 39).

As the current culture becomes increasingly visual, presentation (or the element of delivery) seems to gravitate to the center of rhetorical concern. For this reason, scholarly self-publishing, which grants complete control over both visual and verbal presentation of message, expands in importance as a means for creating the dialogic context.

Computers and other electronic technology have become integral parts of everyday life; all these media are workhorses of industry, science, education, research, publishing, and many other areas of endeavor. The merits of the computer alone are inarguable in our culture, though their acceptance and approval was accomplished only through the authority of science, a discipline that had occupied a position of eminence within our culture for almost four hundred years (Brock 431). By stealthily appropriating scientific language, the most valued, the most esteemed, the most credible language of the twentieth century, computer technicians gained not only credibility for their creation, but also, by extension and association, credibility for themselves and their professions. By using scientific language in their manuals and in the communications which relate to their professions; indeed, by calling their field "computer science," the technicians created a bridge for the computer. They then simply carried it across this short bridge and into the sanctified halls of

education, business, government, and the home. Both university interest in the computer and the interest exhibited by the government have had significant ramifications for the continued growth of the technology's power, a power which scholars can seize for their own empowerment to create the dialogical context.

Electronic Technology and Memory

Changes that have occurred within cultures and within their technologies have affected the canon of rhetoric, which has been adapted, adjusted, and reconsidered as times have demanded. At various times, parts of the canon have received more or less attention as these shifts have occurred. Patrick Mahoney has submitted that the history of rhetoric has consisted of the changing relationships among the five parts of the rhetorical canon (14). Other theorists have also written about this constant shift and rearrangement of the five-part pattern (Welch, Thonssen, Reynolds). John Frederick Reynolds has pointed out that though the rhetorical canon has ruled the structure of the disciplines of both speech and composition, it has done so in a "truncated" way (245). In other words, the rhetorical parts have not always been equally represented, usually because of changes demanded by the culture.

Memory, for instance, was a vital element in ancient rhetorical practices, but as writing and print technologies developed the need to enlarge on memory's capacity and to teach mimetic devices seemed less necessary, even superfluous. Relative to this need, memory's study has almost totally disappeared from the contemporary

discipline of speech (87). Like speech studies, composition studies have all but eliminated memory from their areas of endeavor. Though some theorists have posited that changes in law courts were responsible for this change of attitude toward the study of memory (Kennedy 105), this seems highly unlikely. Instead, it would seem that the technologies of writing, print, and now the technology of computers and their peripherals, rather than rendering the canon of memory unnecessary, have simply insisted that this part of the canon, like other parts of the canon, be adapted to the information age.

In early computer technology, memory was small, expensive, and relatively unimportant (Campbell 151). Even in the late 1980s, the computer's memory capacity was "still puny in comparison with the memory we carry around in our head [sic] . . . only about one four-millionth as capacious as our own" (151-52). Campbell reports that an estimate in the 1980s predicted that it would cost approximately twenty-trillion dollars to make a computer memory equaling that of a human being (152).

Computer technology, still in its adolescence in the 1980s, has in the 1990s seemingly come of age. Computer memory is now virtually limitless, cheap, and absolutely essential, providing scholarly self-publishers with almost boundless environments in which to collect, store, and even publish data. Texts that once were stored in human memories, memories which are not terribly accurate, are stored currently in electronic memory which, though it cannot yet make the associations

which the human brain can make, stores and recalls data accurately (236-39).

Jeremy Campbell has asserted that "In remembering, people not only distort and interpret information from the past so as to make it fit what they know or believe in the present; they seem to add new information" (238). He argues that the human mind has a "way of remembering the strong points of evidence that confirms its beliefs, and the weak points of evidence that disconfirms them" (238).

One remarkable piece of research on memory, cited by Campbell, finds that when people are asked whether the letter k appears most frequently as the first or third letter of a word, they will almost always answer that it appears as the first. The reason for this perception, Campbell claims, is because words are easier to remember by their initial letters rather than by their third letters, the location where k is most often found (238).

Historically people's memories have served to store information after it has been processed by the mind. Memory has taken this information, ordered it, and stored it in a meaningful way, so that the individual could recapture segments of knowledge for use when needed. For ancient rhetors prior to the invention of writing technology, human memory, fallible human memory, was the only means for the storing of information, arguments, and speeches. Cassettes, camcorder, and computers did not exist. A system which worked quite well, human memory still serves, but it no longer serves so satisfactorily for rhetorical practices.

Scholars who self-publish, while they certainly will avail themselves of taped

backup and other memory safeguards, can usually rely (depending on the memory capacity of their particular equipment) on most computer and desktop software to store voluminous text, image, and print files safely. Though few scholars who self-publish will lose all (or any) files as they work toward a publishing deadline, the possibilities of such disasters exist, though these are easily avoided. A particularly effective safeguard is that of storing disks off premises. Files are copied as the document changes and grows; these files, saved on disks, are then stored on premises other than those which house the scholar's computer and associated equipment. Disks might even be stored in multiple locations. Such precautions insure that information and memory will not be lost should something happen to the computer or to the site in which it is located.

Electronic technology offers scholars untold possibilities for impressing their messages upon their audiences; it empowers scholars by endowing them with complete control over visual, verbal, textual, and psychological considerations in documents, as well as others which append to the publishing process. The publishing process, owning the printing press, bestows other powers upon scholarly self-publishers, perhaps the most important power of all: it allows them to create or become part of a dialogical context; it endows them with voices which can speak to audiences. Viable at last, electronic technology is available to scholars who would take control of their messages, manage their own discourses, and join the community of discourses which form the scope of reality.

Foucault has pointed out that a society's discursive formations either give or exclude power to certain discourses. People's perceptions, much like their artistic visions, still cling to the those which were established in the Renaissance. People's perceptions of the frameworks which create their discursive practices have been slow in evolving. But a new view of rhetoric and its applications is emerging. Though most discourses that existed prior to World War II were face-to-face encounters, few discourses continue to be created or mediated in this way. They are now mediated through various other means: the phone, television; within the last few years, via modem and computer. Few scholars can expect to become a part of the dialogical context in the traditional publishing manner. For this reason, many feel that they are isolated from academic and other discourses, that their voices have been silenced. Computer technology offers these scholars the means for empowerment through the self-publishing process, a process which allows scholars to control messages and create dialogical contexts.

WORKS CITED

- Adams, Henry. The Education of Henry Adams: An Autobiography. Sentry Ed. New York: Houghton, 1961.
- Altree, Wayne. Why Talk? A Conversation About Language With Walter J. Ong. Navato: Chandler, 1979.
- Aristotle. The Rhetoric of Aristotle. Trans. Lane Cooper. New York: Prentice, 1932.
- . Of Interpretation. Great Books of the Western World, Encyclopedia Britannica. Ed. Robert Maynard Hutchin. 54 vols. Chicago: Benton, 1952. 25-36.
- Armes, Roy. Film and Reality: An Historical Survey. London: Penguin, 1974.
- Arnheim, Rudolf. Visual Thinking. Berkeley: U of California P, 1969.
- . Entropy and Art: An Essay on Disorder and Order. Berkeley: U of California P, 1971.
- Augustine. On Christian Doctrine. Trans. D. W. Robertson, Jr. Indianapolis: Bobbs-Merrill, 1958.
- Ayre, Rick and Kevin Reichard. "The Web Untangled." PC Magazine. 7 Feb. 1995: 173-96.
- Bacon, Francis. Advancement of Learning and Novum Organum. Rev. ed. London: Colonial, 1900.
- Barilli, Renato. Rhetoric. Trans. Guiliiana Menozzi. Eds. Wald Godzich and Jochen Schulte-Sasse. Theory and History of Literature 63. Minneapolis: U of Minneapolis P, 1989.
- Berk, Emily. "Appendix B: A Hypertext Glossary." Hypertext/Hypermedia Handbook. Eds. Emily Berk and Joseph Devlin. New York: McGraw, 1991.

535-54.

- Berk, Emily and Joseph Devlin, eds. Hypertext/Hypermedia Handbook. New York: McGraw, 1991.
- Berk, Harold. "Case 12 Xanadu." Hypertext/Hypermedia Handbook. Eds. Emily Berk and Joseph Devlin. New York: McGraw, 1991, 524-28.
- Bernhardt, Stephen A. "Seeing the Text." College Composition and Communication 37.1 (1986): 66-78.
- Bissonette, David. "Word Gallery." College English Oct. 1975: 202.
- Bleiberg, Larry. "Professors, Copy Centers Compile Own Texts." Dallas Morning News 27 April 1993: A27.
- Brock, Bernard L., et al., eds. Methods of Rhetorical Criticism: A Twentieth-Century Perspective. Detroit: Wayne State UP, 1989.
- Browne, David. Welcome to Desktop Publishing. New York: Holt, 1993.
- Burke, Kenneth. Counter-Statement. New York: Harcourt, 1931.
- . Language as Symbolic Action: Essays on Life, Literature, and Method. Berkeley: U of California P, 1966.
- . Dramatism and Development. Barre, MA: Clark UP, 1972.
- Burns, Hugh. "The Challenge of Computer-Assisted Rhetoric." Computers and the Humanities 18 (1984): 173-81.
- Canfield, J. Douglas and J. Paul Hunter. Introduction. Rhetorics of Order / Ordering Rhetorics in English Neoclassical Literature. Newark: U of Delaware P, 1989. 13-17.
- Century: Papers Presented at the David Nichol Smith Memorial Seminar. Ed., R. F. Brissenden. Canberra: Australian National UP, 1968.
- Chappell, Warren. A Short History of the Printed Word. New York: Knopf, 1970.
- Cicero. On Oratory and Orators. Trans. J. S. Watson. Carbondale: Southern

Illinois UP, 1970.

Clark, Gregory. Dialogue, Dialect, and Conversation: A Social Perspective on the Function of Writing. Studies in Writing and Rhetoric. Carbondale: Southern Illinois UP, 1990.

Connors, Robert J. "Actio: A Rhetoric of Manuscripts." Rhetoric Review. 2.1 (1983): 64-73.

Cooper, Lane, trans. Introduction. Rhetoric. By Aristotle. New York: Prentice, 1932. xvii-xxxv.

Cotton, Bob, ed. Introduction. The New Guide to Graphic Design. Secaucus: Chartwell, 1990. 13-25.

Crosby, Harry H. and George R. Bond, eds. "Graphics Convey Message In Medium Is the Message." The McLuhan Explosion: A Casebook on Marshall and Understanding Media. New York: American, 1968.

D'Angelo, Frank J. "Subliminal Seduction: An Essay on the Rhetoric of the Unconscious." Rhetoric Review. 4.2 (1986): 160-71.

Day, Henry. The Art of Discourse: A System of Rhetoric Adapted For Use In Colleges and Academies, and also for Private Study. New York: Scribner, Armstrong, 1875.

Di Cesare, Mario A., ed. George Herbert and the Seventeenth-Century Religious Poets, Authoritative Texts Criticism. New York: Norton, 1978.

Dondis, Donis A. A Primer of Visual Literacy. 1973. Cambridge: MIT P, 1974.

Dragga, Sam and Gwendolyn Gong. Editing: The Design of Rhetoric. Amityville: Baywood, 1989.

Dvorak, John C. "Info Overload at Your Fingertips." PC Magazine 28 Mar. 1995: 89.

Eisenstein, Elizabeth L. The Printing Press as an Agent of Change: Communications and Cultural Transformations in Early-modern Europe. 2 vols. Cambridge: Cambridge UP, 1979.

- Foucault, Michel. The Order of Things: An Archaeology of the Human Sciences. New York: Pantheon, 1970.
- . The Archaeology of Knowledge. Trans. A. M. Sheridan Smith. New York: Harper, 1972.
- . Power/Knowledge: Selected Interviews and Other Writings 1927-1977. Ed. Colin Gordon. Trans. Colin Gordon, et al. New York: Pantheon, 1980.
- "First Looks." PC Magazine. 24 January 1995: 37-56.
- Free, John. "Electronics Newsfront." Popular Science. March 1992, 36-38.
- Galloway, Margaret. "Electronic-Journals (E-Journals): Growing Impact on Scholarly Research." Unpublished conference paper. Western Social Science Conference, Denver, CO, April 1992.
- Gayeski, David and David Williams. Interactive Media. Englewood Cliffs: Prentice, 1985.
- Gervasi, Anne. "A Rhetoric for Professional Writing: Global Writing." Diss. Texas Woman's U, 1992.
- Gleick, James. Chaos: Making a New Science. New York: Penguin, 1987.
- González, Sean. "HTML: Nothing but Net." PC Magazine. 7 February 1995: 156-57.
- Gookin, Dan and Andy Rathbone. PCs for Dummies. 2nd. ed. San Mateo: IDG Books, 1994.
- Grunin, Lori, et al. "Desktop Presentations: Captivated Audience." PC Magazine. 27 Sept. 1994: 257-88.
- . "Electronic Publishing: Publish without Paper!" PC Magazine. 7 Feb. 1995: 110-71.
- Hampton, Rosemary E. "The Rhetorical and Metaphorical Nature of Graphics and Visual Schemata." Rhetoric Society Quarterly 20.4 (1990): 347-56.
- Hampton, Rosemary E. "The Rhetorical and Metaphorical Nature of Graphics and

- Visual Schemata." Rhetoric Society Quarterly. 20.4 (1990): 347-56.
- Harris, Robert W. Understanding Desktop Publishing. San Francisco: Sybex, 1991.
- Heckleman, Ronald J. "Managing the American Self and Professional Writing." Rhetorical Designs for Professional and Technical Writers: A Teacher's Guide. Ed. William E. Tanner. Dallas: Caxton's Modern Arts P, 1994. 27-32.
- Hoffer, Eric. The Ordeal of Change. New York: Harper, 1952.
- Holquist, Michael. Introduction. Speech Genres & Other Late Essays. By M. M. Bakhtin. Trans. Vern W. McGee. Eds. Caryl Emerson and Michael Holquist. University of Texas Slavic Series 8. Austin: U of Texas P, 1986. ix-xxiii.
- Horner, Winifred Bryan. Arrangement. Rhetoric in the Classical Tradition. New York: St. Martin's, 1988. 229-62.
- Howard, Pierce J. The Owner's Manual for the Brain: Everyday Applications from Mind-Brain Research. Austin: Leorian P, 1994.
- Huxley, Francis. The Eye: The Seer and the Seen. New York: Thames, 1990.
- Irwin, Terence. Classical Thought. A History of Western Philosophy 1. Oxford: Oxford UP, 1989.
- Kay, Alan. "Computer Software." Scientific American. 251.3 (1984): 53-59.
- Kennedy, George A. Classical Rhetoric and Its Christian and Secular Tradition from Ancient to Modern Times. Chapel Hill: U of North Carolina P, 1980.
- Klaiman, Ann Edgerly. Publishing the Literary Magazine. Lincolnwood: National Textbook Co., 1991.
- Korshin, Paul J. "The Idea of an Academic Press at the Fin de Siècle." Scholarly Publishing 22.2 (1991): 67-77.
- Kostelnick, Charles. "Visual Rhetoric: A Reader-Oriented Approach to Graphics and Design." The Technical Writing Teacher 16.1 (1989): 77-88.

- . "The Rhetoric of Text Design in Professional Communication." The Technical Writing Teacher 17.3 (1990): 189-202.
- Krueger, Myron W. Artificial Reality II. 2nd ed. New York: Addison-Wesley, 1990.
- Kuhn, Thomas. The Structure of Scientific Revolutions. 2nd ed. enl. Chicago: U of Chicago P, 1970.
- Lanham, Richard A. A Handlist of Rhetorical Terms: A Guide for Students of English Literature. Los Angeles: U of California P, 1968.
- Levin, James A. "Interpersonalized Media: What's New?" Byte. June 1980, 214-28.
- Levine, Howard and Howard Rheingold. The Cognitive Connection. New York: Prentice, 1987.
- Lindemann, Erika. A Rhetoric for Writing Teachers. 2nd ed. New York: Oxford UP, 1982.
- Mahoney, Patrick. "McLuhan in the Light of Classical Rhetoric." College Composition and Communication 20 Feb. 1969: 12-17.
- McLuhan, Marshall. Understanding Media: The Extensions of Man. New York: McGraw, 1964.
- . Counterblast. New York: Harcourt, 1969.
- . McLuhan, Marshall, and Quentin Fiore. The Medium is the Massage: An Inventory of Effects. New York: Bantam, 1967.
- Mead, George Herbert. Mind, Self, and Society. Ed. C. W. Morris. Chicago: U of Chicago P, 1934.
- Mendelson, Edward. "WordPerfect Adds Speed and Grace to Power." PC Magazine 24 Jan. 1995: 37-40.
- Miller, George A. "The Magical Number Seven, Plus or Minus Two: Some Limits on Our Capacity for Processing Information." The Psychological Review. 63.2 (1956): 81-97.

- Miller, Thomas P. "Reinventing Rhetorical Traditions." Learning from the Histories of Rhetoric: Essays in Honor of Winifred Bryan Horner. Ed. Theresa Enos. Carbondale: Southern Illinois UP, 1993. 26-41.
- Nietzsche, Friedrich. Philosophy and Truth, Selections from Nietzsche's Notebooks of the Early 1870s. Ed. and trans. Daniel Breazeale. New Jersey: Humanities P, 1979.
- Ong, Walter J. Orality and Literacy: The Technologizing of the Word. Gen. ed. Terence Hawkes. New Accents. London: Methuen, 1982.
- . Interfaces of the Word: Studies in the Evolution of Consciousness and Culture. Ithaca and London: Cornell UP, 1977.
- . "Ramist Method and the Commercial Mind." Studies in the Renaissance 5.8 (1961): 15-72.
- . Rhetoric, Romance, and Technology: Studies in the Interaction of Expression and Culture. Ithaca: Cornell UP, 1971.
- Parker, Roger C. Looking Good in Print: A Guide to Basic Design for Desktop Publishing. 3rd ed. Chapel Hill: Ventana, 1993.
- Parsons, Paul. "The Evolving Publishing Agendas of University Presses." Scholarly Publishing 23.1 (1991): 44-50.
- Phillips, Gerald M. and Bradley R. Erlwein. "Composition on the Computer: Simple Systems and Artificial Intelligence." Communication Quarterly 36.4 (1988): 243-60.
- Picher, Oliver, et al. "Hypermedia." Hypertext/Hypermedia Handbook. Eds. Emily Berk and Joseph Devlin. New York: McGraw, 1991. 23-52.
- Poor, Alfred. "Color for All." PC Magazine. 7 Feb. 1995. 199-234.
- Quintilian. The Institutio Oratoria of Marcus Fabius Quintilinaus. Ed. Charles Edgar Little. Vol. 1. Nashville: George Peabody College for Teachers, 1951. 2 vols., 1951.
- Reynolds, John Frederick. "Concepts of Memory in Contemporary Composition." Rhetoric Society Quarterly 19.3 (1989): 245-52.

- Romano, Carlin. "Outlook for the Publishing of Serious Books Is Gloomy." Dallas Morning News 20 March 1994: C12.
- Rosenberg, Richard S. The Social Impact of Computers. New York: Academic, 1992.
- Schramm, Wilbur. "Mass Communication." Communication, Language, and Meaning: Psychological Perspectives. George A. Miller, ed. New York: Basic Books, 1973. 219-30.
- Spears, Beverly. "Seeing Selves: The Professional Writer/Persona." Rhetorical Designs for Professional and Technical Writing: A Teacher's Guide. Ed. William E. Tanner. Dallas: Caxton's Modern Arts P, 1994. 183-90.
- Spinoza, Baruch. The Ethics and Selected Letters. Trans. Samuel Shirley. Indianapolis: Hackett, 1982.
- Stewart, Donald C. "Some Thoughts on Arrangement." Journal of Advanced Composition. 7 (1987): 92-100.
- Tanner, William E. "An Emerging Rhetoric of E-Mail." Rhetorical Designs for Professional and Technical Writing: A Teacher's Guide. Ed. William E. Tanner. Dallas: Caxton's Modern Arts P, 1994. 247-53.
- . "Delivery, Delivery, Delivery." Retrospectives and Perspectives: A Symposium in Rhetoric. Eds. Turner S. Kobler, William E. Tanner, and J. Dean Bishop. Denton, Texas: NCTE, 1978. 23-29.
- Thonssen, Lester, A. Craig Baird, and Waldo W. Graden. Speech Criticism. 2nd. ed. New York: Ronald, 1970.
- Thompson, M. Keith. "First Looks." PC Magazine 28 April 1992: 8, 47.
- Turkle, Sherry. "The Psychology of Personal Computers." The Information Technology Revolution. Ed. Tom Forester. Cambridge: MIT Press, 1985, 182-201.
- Vološinov, V. N. Marxism and the Philosophy of Language. Trans. Ladislav Matejka and I. R. Titunik. Studies in Language 1. New York: Seminar P, 1973.

- Waldrop, M. Mitchell. Man-Made Minds: The Promise of Artificial Intelligence. New York: Walker, 1987.
- Watkinson, Ray. William Morris as Designer. London: Trefoil, 1990.
- Welch, Kathleen E. "Classical Rhetoric and Contemporary Writing Pedagogy: Orality, Literacy, and the Historicizing of Composition." Unpublished conference paper. Conference on College Composition and Communication, St. Louis, MO, March, 1988.
- White, Eugene E. "Rhetoric as Historical Configuration." Rhetoric in Transition: Studies in the Nature and Uses of Rhetoric. Ed. Eugene E. White. University Park, PA: Penn State UP, 1980.
- Wren, Linnea H. and David J., eds. Perspectives on Western Art: Source Documents and Readings from the Ancient Near East through the Middle Ages. New York: Icon-Harper, 1987.