THE AVAILABLE MEANS OF DESIGN: A RHETORICAL INVESTIGATION OF PROFESSIONAL MULTIMODAL COMPOSITION

A dissertation submitted to Kent State University in partial fulfillment of the requirements for the degree of Doctor of Philosophy

by

Lindsay B. Steiner August, 2013 Dissertation written by Lindsay B. Steiner B.A., Ohio University, 2004 M.A., Kent State University, 2009 PhD., Kent State University, 2013

Approved by

	, Chair, Doctoral Dissertation Committee
Pamela Takayoshi, Professor of English	, Chan, Bottoral Bissertation Committee
Raymond Craig, Associate Dean, College of	, Member, Doctoral Dissertation Committee of Arts & Sciences
Sara Newman, Professor of English	, Member, Doctoral Dissertation Committee
Stanley Wearden, Dean, College of Commo	, Member, Doctoral Dissertation Committee unication and Information
Albert Ingram, Associate Professor of Instr	, Member, Doctoral Dissertation Committee ructional Technology
Acce	epted by
Robert Trogdon,	Chair, Department of English
Raymond Craig	Associate Dean, College of Arts and Sciences

TABLE OF CONTENTS

LIST OF FIG	GURES	iv
LIST OF TA	BLES	v
ACKNOWL	EDGMENTS	vi
Chapter		
I.	Rhetoric and Multimodality: Introduction and Literature Revi	lew1
II.	Creating Context for Analysis:	
	Print-Linguistic Snapshots of Process	38
III.	Research Methodology and Methods	
	for Analyzing Professional Design Processes	64
IV.	Horizontal Arrangement in Professional Design Processes	
V.	Vertical Arrangement in Professional Design Processes	126
VI.	Conclusions and Implications:	
	Generating Future Inquiry and Practice	152
REFERENC	ES	161

LIST OF FIGURES

Figures

2.1 Final screen capture of Anne's postcard	40
2.2 Final screen capture of Eric's illustration.	47
2.3 Final screen capture of Fred's layout.	52
2.4 Final screen capture of Mary's book cover	56
3.1 Screen capture of segmented and coded data	81
4.1 Horizontal arrangement graphic representation	96
4.2 Dimension 1 of horizontal arrangement.	104
4.3 Dimensions 1, 2, 3, and 5 of horizontal arrangement	110
4.4 Dimension 3 of horizontal arrangement (additional example)	116
4.5 Dimension 4 of horizontal arrangement	119
4.6 Dimension 5 of horizontal arrangement.	122
5.1 Vertical arrangement graphic representation.	133
5.2 Dimension 1 of vertical arrangement.	137
5.3 Dimension 2 of vertical arrangement.	144
5.4 Dimension 2 of vertical arrangement (additional example)	145

LIST OF TABLES

Tables

3.1 Overview of participants and data collection	68
3.2 Frequency and description of primary codes	82
3.3 Frequency and description of secondary codes	83
3.4 Frequency of horizontal and vertical arrangement	86
4.1 Example coding for horizontal arrangement in Eric's process	97
4.2 Example coding for horizontal arrangement in Fred's process	97
4.3 Example coding for horizontal arrangement in Anne's process	98
4.4 Example coding for horizontal arrangement in Mary's process	99
5.1 Example coding for vertical arrangement in Anne's process	131
5.2 Example coding for vertical arrangement in Eric's process	131
5.3 Example coding for vertical arrangement in Mary's process	132

ACKNOWLEDGMENTS

I would like to thank my dissertation director, Pam Takayoshi, for her insightful, intelligent, and creative guidance throughout this project. I thank Ray Craig for his mentorship over the years and reminding me to "be well" as I completed my dissertation. I am also grateful to Sara Newman for her encouragement and rhetorical insights into my project. I would also like to thank my outside reader, Stan Wearden, and graduate faculty representative, Chip Ingram, for their thoughtful interdisciplinary critiques and suggestions for clarifying and improving this project. I extend gratitude to the four participants who graciously offered their time and talents so that I could better understand what it means to be a contemporary rhetorician.

I want to thank my parents and sister for fostering a sense of curiosity and creativity in me throughout my life. To my wonderful friends: you have mentored me, listened to my worries, and made me laugh. Finally, I thank my partner Eric for his constant intellectual stimulation over the course of our relationship and encouragement to push the boundaries of my comfort zone. You and our dogs, Harvey and Luna, keep me grounded.

These essential voices are proof of the inherently social nature of writing. This project would not have been possible without these people, and for that, I am grateful.

CHAPTER 1

Rhetoric and Multimodality: Introduction and Literature Review

Existing scholarship on multimodality largely focuses on finished textual artifacts, with few data-driven studies of contemporary multimodal composing processes in situ. Extending theories of multimodality and rhetoric beyond textual artifacts, this dissertation focuses instead on the use of rhetoric in the multimodal composing processes of four professional graphic designers. I observed four designers as they composed multimodal documents; their composing processes were captured in thinkaloud protocol screencasts (in which the think-aloud narrative is synchronized with a video computer-screen capture of their composing processes) supported by interviews for context.

More specifically, this dissertation describes how the four designers use rhetorical concepts during their design processes, especially in terms of rhetorical arrangement.

Rhetorical theory emphasizes the careful identification and use of the available means of persuasion within a specific rhetorical situation. This means that composers (in this study, the designers) must show a keen sensitivity to audience, purpose, and context while

^{© 2013.} Lindsay B. Steiner. All rights reserved.

¹ In this dissertation, multimodality refers to the use of more than one mode of representation in composing practices and texts (e.g. visual, aural, and spatial modes).

² More specifically, this dissertation describes how rhetoric is used in "slices" of four graphic design processes. It was not within the scope of this project to observe the "entire" process of designing. Future research will involve other parts of the process, including brainstorming with clients and revising. All references to "process" in this dissertation refer to the slice of process I observed unless otherwise noted.

making choices during their unique design processes. While the classical understanding of rhetorical arrangement refers to the ordering of elements within oral discourse, I argue, instead, that arrangement is a creative and guiding tool for making meaning in contemporary graphic design processes. This perspective suggests that arrangement is used horizontally and vertically instead of in a static, linear fashion (see Chapters 4 and 5). Additionally, this project suggests some ways that arrangement is imbricated with the other rhetorical canons and is not easily separated as an individual step in the composing process (imbrication being a nod to James Berlin, 1992³). An underlying theme is the invisibility⁴ of these composing processes and their respective technologies and techniques. These invisible means are discussed further through a descriptive analysis of the use of rhetorical arrangement in the four composing processes. Ultimately, this project contributes to current research on rhetoric, multimodality, and professional writing through a description of how rhetoric is currently used in contemporary professional graphic design processes.

Research Questions and Scope of the Study

I ask the following research questions to guide my study:

³ Berlin (1992) uses the term "imbrication" to refer to things that are "inseparably overlapped however distinguished for purposes of discussion" (p. 23).

⁴ I use the term "invisible" as a metaphor for things that cannot be immediately observed, seen, felt, heard, or experienced. Invisible, here, is used in a broader sense than simply what cannot be "seen" visually. For example, a large portion of each of the four design processes I observed is invisible in the final textual products, leaving only traces of each process behind. Part of my interest in this project is focused on identifying some of those invisible moments by researching in situ design processes. Initially, I struggled with the use of the term "invisible" as it seems to highlight the visual sense over others (which conflicts with my perspective that these designers are working with more than the visual mode). However, I have come to accept that "invisible" can be used more broadly to suggest what might be lost or hidden in the final textual product.

Overarching, conceptual question:

 What do professional design processes reveal about contemporary reconstructions of classical rhetoric?

Specifying question:

 How do professional graphic designers use rhetorical arrangement in their composing processes?

The first question offers a broader view of the project in terms of rhetoric and rational reconstruction, while the second is specific to my dissertation research. In order to address the specifying question, I analyzed think-aloud protocol data by looking for emergent rhetorical themes (see Chapter 3) with support from video screen capture data and supplementary interviews for context. The main objective of this project is to develop an empirically based *description* of how classical rhetoric, specifically arrangement, is used in four contemporary graphic design processes. As Prior (2004) argues, "we can only understand where texts come from–in terms of their authorship and social contexts as well as their content and textual organization–by careful tracing of their histories" (pp. 196-197). Likewise, Bernhardt (1986) suggests the importance of empirical research specifically on design, especially work that *rhetorically contextualizes* what designers do when they compose. This study offers a rhetorically contextual multimodal trace of the four processes observed and recorded for analysis (see Chapter 3). By tracing the composing processes of a small sample of graphic designers⁵, I describe how rhetoric is

⁵ In this project I consider graphic designers to be professional multimodal composers, and will use those titles interchangeably unless otherwise noted.

actually used in four contemporary composing situations and respond to Prior (2004) and Bernhardt's (1986) calls for such work.

This project is not intended to support broad generalizations about contemporary multimodal and graphic design processes. Instead, the purpose is to contribute current descriptive insight into how such practices *may* occur. In addition, the findings suggest the need for further empirical research on professional graphic design activity and theorizing of rhetorical concepts situated within that activity (see Chapter 6). Because this project offers a look at how four professional graphic designers use rhetoric when they compose in non-academic situations, it can be useful for both contemporary theoretical and pedagogical approaches to understanding multimodality. This first chapter discusses the relevant concepts, definitions, and scholarship that surround this project, including rhetorical, technological, and pedagogical perspectives, and then concludes with a brief overview of the following chapters and their purposes.

Framing the Project with Precision

This dissertation is guided by the classical understanding of rhetoric as that of seeing "the available means of persuasion in each case" (Arist. *Rhet.* I.2, 1356a1, trans. Kennedy). Originally, rhetoric was designed for spoken civic discourse, with Aristotle acting as a metaphorical "bridge" between oral and literate rhetoric in ancient Greece (Graff, 2001). While the classical rhetorical theorists did not use the term "multimodality," classical rhetorical concepts have been and can be rationally reconstructed to understand contemporary multimodal composing activity such as graphic design (Schiappa, 1990; Shipka, 2005; Prior et al., 2007). I do this by dividing

rhetorical arrangement into what I call horizontal and vertical arrangement⁶—concepts which are discussed further in Chapters 4 and 5.

This project contributes to a growing body of research in writing studies that is grounded in a long history of inquiry on the printed word. From this perspective, writing researchers have been increasingly turning their attention to the *contemporary* rhetorical situations of the printed word—situations that increasingly are multimodal, involving image, video, color, sound, and other modes of representation. This broader view of writing is supported by Selfe (2009), who argues, "when we privilege print as *the only* acceptable way to make or exchange meaning, we not only ignore the history of rhetoric and its intellectual inheritance, but we also limit . . . our scholarly understanding of semiotic systems" (p. 618). The current direction of writing studies is increasingly more and more accepting of this broad understanding of writing, especially considering the increasing popularity of multimodality, new media, and digital composing, as well as the definitional uncertainty and plurality accompanying these conceptual terms (see Lauer, 2009, 2012).

This study seeks to describe how classical rhetoric is used in situ in contemporary composing processes, specifically that of four professional graphic designers. Selfe (2009) argues that the need to research people in situ as they compose and design allows for

⁶ I use the terms horizontal and vertical arrangement to refer to the dimensional and layered qualities of rhetorical arrangement as observed in the four design processes studied in this project. These terms are rational reconstructions of the classical rhetorical canon, arrangement, for contemporary composing processes (Schiappa, 1990).

Additional chances to observe, systematically and at close quarters, how people make meaning in contemporary communication environments when they have a full palette of rhetorical and semiotic resources on which to draw, new opportunities to theorize about emerging representational practices within such environments, and additional chances to study the communicative possibilities and potentials of various modes of expression. (pp. 644-645)

While the participants in my study do not have access to an "unlimited" palette of resources (as somewhat implied by Selfe, 2009), they do work with the understanding that their semiotic and rhetorical palette includes a wide range of rhetorical and semiotic resources. While writing can be defined in many ways, in this project I take Witte's (1992) perspective:

To study writing is, over and above all else, to study acts of making meaning that are mediated through "texts." "Texts" may be defined broadly as organized sets of symbols or signs. These sets of signs or symbols may themselves function, for either writers or readers, as a collocated but unitary symbol or sign, as in the case of an individual text considered as a totality. (p. 276)

This definition of writing allows the inclusion of multimodal composing as a kind of writing (and also suggests that writing is a kind of multimodal composing, which will be discussed further below). Traditionally, in writing studies, the print-linguistic written mode is emphasized, often rendering other modes invisible or less important. Likewise,

-

⁷ This project focuses primarily on rhetoric and does not use an explicitly semiotic framework. However, I do refer to semiotics and semiotic resources at times in reference to scholarship that does the same.

in design studies⁸, the visual mode is often emphasized, de-emphasizing traditional print-linguistic writing. This phenomenon can be seen in the four graphic design processes discussed in this dissertation. For example, the designers spent much more time choosing rhetorically effective fonts rather than considering the print linguistic content. My study offers a way to bridge these two "monomodal" approaches by re-framing visual design practice and print-linguistic writing as multimodal, perhaps opening up a wider range of available means for composers.

I use the term multimodal(ity) because it allows me to connect both multimodal composing practices in non-academic, professional environments with the proliferation of research on multimodality in the field of rhetoric and composition (which is largely centered on pedagogical research). As Lauer (2009) argues, multimodality has not become a commonplace term outside the academic field of rhetoric and composition:

Though multimodal has become more commonly used in scholarly literature related to the new kinds of texts students are exploring in the composition classroom, it is almost entirely absent from course titles, program names, and more public discussions outside of the academy where the term multimedia takes prevalence. (p. 226)

Lauer's (2009) comparison and analysis of the terms "multimodal" and "multimedia" suggests that "defining terms is a situated activity that involves determining the collective interests and values of the community for which the definition matters" (p. 225). The

-

⁸ I acknowledge that design studies is rich with scholarly inquiry, theory, and practice. It is not within the scope of this project to go into detail about design studies as a field. However, such a review will be included in a larger expansion of this project.

primary audience for this dissertation is situated within the larger academic field of rhetoric and writing studies and thus merits the use of the terms multimodality and multimodal composing as descriptions of the graphic design activity studied here. I understand multimodal composing as that which involves the use of two or more modes of representation. In addition, I make a distinction between multimodality and multimodal composing: multimodality will refer to a larger theoretical perspective, while multimodal composing refers to contextual composing practices such as the four graphic design processes investigated in this dissertation.

As the originator of the term "multimodality," the New London Group (1996) explains its importance in today's communicative landscape:

One of the key ideas informing the notion of multiliteracies is the increasing complexity and inter-relationship of different modes of meaning. We have identified six major areas in which functional grammars—the metalanguages that describe and explain patterns of meaning—are required: Linguistic Design, Visual Design, Audio Design, Gestural Design, Spatial Design, and Multimodal Design. Multimodal Design is of a different order to the other five modes of meaning; it represents the patterns of interconnection among the other modes. We are using the word "grammar" here in a positive sense, as a specialized language that describes patterns of representation. (p. 78)

Ultimately, the New London Group (1996) argues, "all meaning-making is multimodal" (p. 81). For example, print linguistic writing can be understood as both visual and verbal: it is visualized verbal language. From this definition, print linguistic writing can be

considered multimodal in that it uses at least two modes of representation (visual and verbal). In many instances, oral language may be considered multimodal when significantly representative gestures accompany such discourse—here, the gestures act as visual emphasis and information in a relationship with the verbal speech. A perspective on multimodality as an ecology of modal interactions suggests the importance of rhetoric in understanding situated practices such as graphic design.

The multimodal qualities of seemingly singular modes (e.g. "written") was illustrated prior to the New London Group (1996) by Bernhardt (1986):

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, a process which gives visual cues to the verbal organization of the text. (p. 66)

In this example, print linguistic writing can be considered inherently multimodal as it simultaneously draws on linguistic and visual modes (this includes space as a mode, when spacing is used rhetorically). According to Graff (2001), Aristotle even refers, albeit subtly, to the visual qualities of print linguistic discourse:

There seems no denying his exceptional sensitivity to the ways in which the visual arrangement and physical layout of the written text will bear on the eventual actualization of the text in sound....an implicit privileging of vision is contained in Aristotle's insight that desired acoustic effects can be achieved most

consistently when care is given to the manner in which words are arranged visually on the "page." (p. 32)

Here, Graff (2001) refers to Aristotle's emphasis on the readability of written rhetoric intended for spoken delivery—in this instance, there are multiple modes of delivery and multiple audiences. The first audience is the orator, who will read the written speech and then orally deliver it to a listening audience. In a way, this activity is multimodal (albeit asynchronously): it includes visual print linguistic text, oral speech, and, possibly, gestures. In this instance, the composing and delivery processes are multimodal when considered as an extended rhetorical act.

To further complicate and clarify these terms, medium is not necessarily the same as mode. Kress and Van Leeuwen (2001) explain that the difference between the two is based primarily on where each appears within the meaning-making continuum: essentially, modes connect with the "content" and media with the "expression" of that content (p. 21). However, the medium/media of production and composing activity may be different than that of the final distribution medium/media, therefore blurring the lines between mode and medium further and pushing against Kress and Van Leeuwen's (2001) definition that separates content and expression (the form/function binary is discussed below).

Because the data for this project are derived from graphic design activity intended primarily for static, print-based media distribution and consumption, the primary modes employed can be considered visual, verbal, and spatial. In addition, the composing space and environment (composing media) are often different from the distribution media: the

four designs in this study were composed digitally within Adobe Creative Suite (the industry standard design software), but will be distributed through print media (with the exception of one illustration that may be printed and additionally distributed in online environments). The data are recorded using video-screen capture software, so the *recorded* composing processes, in this study, involve two additional modes of representation: aural (sound, or more specifically to this project, spoken voice) and movement through time (design process on the screen). These two modes of representation are not explicitly present in the final textual products, and can be considered invisible modes of representation that only come to light when the composing process is under study. In addition, the data recordings result in a multimodal text to be further analyzed (discussed in Chapter 3).

Claire Lauer (2012) explains the important role of precision in the field's use of key terminology such as multimodality and multimodal:

Precision is an important aspect of a term's definition, especially as that term evolves, because it helps users identify specific instances in which a term may apply and other instances in which a term may not be suitable but where other terms should be considered or developed....Precision exposes a carefulness of thought that allows a term's definition to be taken seriously. More importantly, precision is what furthers the evolution of a term because only until boundaries have been drawn around a term can those boundaries be tested and challenged.

I have chosen to use the terms multimodal composing and multimodality to describe the kind of composing activity studied and discussed in this project. As defined above, I

consider multimodality as a larger theoretical perspective, whereas multimodal composing refers to a specific composing practice such as the design activity studied in this project. These terms allow for a more precise and contextually accurate definition of this composing activity for a writing studies audience.

From a writing studies perspective, the four graphic designers in this study are composing *multimodal* texts: these texts involve more than one kind of representational resource for making meaning. These texts include a marketing postcard for a summer camp, an illustration for an article, a two-page magazine spread, and a book cover (see Chapters 2 and 3). To call this activity visual composing or visual rhetoric is not as precise as multimodal composing or multimodal rhetoric because these designers use more than "just" the visual mode in their processes. For the field of writing studies, the term "document design" is also less precise as it highlights the materiality (a "document") over the representational resources used (multiple modes). In addition, document design emphasizes the final product (a "document"), while multimodal composing focuses on the use of multiple modes of representation in the composing activity. Precision in these terms also highlights the complexity and dimensionality at work in these composing processes. Calling these processes and texts "visual" (or any other singular mode) is too simplistic and reductive. Framing these practices as *rhetorical* multimodal processes adds another layer of complexity.

I do acknowledge that there are some essential qualities to modes, specifically in terms of the senses required to engage with those modes (e.g. sight and the visual). In this project research, modes are framed rhetorically and certain modal qualities are

emphasized *within* a specific rhetorical situation. In the four design processes I analyze, the designers use modes as available means of persuasion, where some modes may be more effective than others based on the specific rhetorical situation at hand. Additionally, certain elements may be used to emphasize specific modal qualities over others. Fonts are a good example of the rhetorical use of modes: the designers choose fonts that communicate an idea, feeling, or mood related to a design's overall concept. In the case of fonts, the designers emphasize visual and spatial modes over the verbal mode of the words (however, on a very basic level, one must be able to *see* in order to engage with these font choices).

Kress (2005) offers a somewhat controversial discussion of modal functions and meaning, and suggests that the history of semiotic representation moves from primarily written to primarily visual. This argument may imply that a singular print linguistic mode was used in the past, while today a singular visual mode is becoming dominant. This history may be more widely accepted with an explicit consideration of which modes have been *culturally* and *historically* valued more so than others—an argument supported by Lauer (2012), who suggests that definitional differences "can be best explained by understanding the differences in how texts are valued and evaluated in academic versus non-academic or industry contexts." For instance, print linguistic writing may have been more widely accepted within the academy in the past, but today multimodal texts may be gaining similar acceptance due to a variety of factors. In his argument, Kress (2005) refers to "culturally valued modes," so perhaps his representation of history is

_

⁹ This is a problematic history for some, including McDonagh, Goggin, & Squier (2005), Prior (2005), Wysocki (2005).

unfortunately a bit misunderstood simply as a universalizing perspective devoid of context (p. 5).

The various interpretations of Kress's (2005) historical claims show how theories of multimodality must be constructed, at least in part, as *contextualized* rhetorical acts. In this example, one can see how rhetoric emphasizes the most appropriate available means of persuasion within a specific moment in time. In addition, Arnheim (1969) explains the popular, although artificial, divide between visual perception and mental thought, further acknowledging a culturally and historically constructed hierarchy of modes (see also Stafford, 1994). Regardless, a focus on cultural values points to the use of certain conventions and to the rhetorical qualities involved in the use of such conventions.

Rather than suggesting that words are inherently meaningless and that "the" visual mode contains meaning in and of itself (Kress's 2005 argument), Prior (2005) argues for an emphasis on cross-modal logics. Prior chides Kress for what he reads as a linear history of written to verbal communication, instead offering a history drawn from Bolter and Grusin (1999): a history that is full of "blurred, complex and mutual relations" (p. 26). In a sense, Prior's (2005) argument mirrors Wysocki's (2004b): Prior (2005) advocates rhetorical choice in how modes are defined, chosen, used, and harnessed for a specific rhetorical need and situation. He also laments Kress' neglect of "semiotic practice" as a way of understanding modal relations and meaning making (Prior, 2005, p. 28). Focusing my project on situated professional *practice* responds, in part, to Prior's (2005) lamentation. This dissertation focuses on the use of rhetoric in four professional

graphic design processes—not on a "finished" textual product, which has often been the object of study in much research on multimodality.

Kress (2005) also discusses the role of audience in composing processes: "equally significant now is the aptness of fit between mode and audience. I can now choose the mode according to what I know or might imagine is the preferred mode of the audience I have in mind" (p. 19). I agree that audience awareness is extremely important in understanding composing processes, especially because audience is a central concept in rhetorical theory (see Chapter 3). A counter argument to Kress (2005), though, might be that such modal choice is *not* newly available *only* to contemporary composers, suggesting instead that Kress's position is akin to technological determinism and is a historical inaccuracy (as the history of art, for example, shows). For example, suggesting that the visual mode is more prominent as a direct result of changes in contemporary composing technologies may lead to technological determinism (issues concerning composing technologies and techniques are further discussed below). The use of digital design software is central to the composing practices under study in this dissertation, which complicates simple definitions of materiality and composing environments in contemporary multimodal composing practices. However, again, I do acknowledge that there are certain essential qualities to modes, especially in reference to the senses required to experience those modes (e.g. sight and the visual, hearing and the aural). My focus here is to consider how *rhetoric* influences the uses of these modes.

Much of the scholarship on multimodality focuses on one mode in relation to rhetoric (e.g. visual rhetoric). However, this distinction may emphasize an artificial

separation between modes in a text-it may be overly simple to label a text "visual" when it clearly contains multiple modes of representation. Regardless, much visual rhetoric scholarship argues against the idea that the visual mode is merely decorative or additive—visual, in this scholarship, is not simply ornament for the primarily print linguistic text within such documents. Amare and Manning (2007) argue, "visual rhetoric goes beyond basic document design issues to include the rhetoric of both textual visuals and graphics visuals where the author, message, and audience all connect" (p. 65). By separating seemingly visual elements from other elements in the composing process, "visual deployment consistently defaults to decorative strategies" (Amare and Manning, 2007, p. 65). Emphasizing one mode over another, outside of a specific context, limits the available means of persuasion in any given case (a nod to Aristotle). I follow Stafford's (1994) argument that "imaging" (or multimodality), is best understood from multiple, contextual perspectives. Multimodal communication is not simply additive, decorative, or ornamental; it can be used to make meaning in strategic, rhetorical ways just like traditional print-linguistic prose (which, as I've argued above, is multimodal).

My interest in rhetoric and professional multimodal composing is mirrored by Yancey's (2004) inquiry into how the field understands rhetoric, specifically in terms of the canons: "Like others before me, I would note that we have separated delivery and memory from invention, arrangement, and style in ways that are counterproductive. Let me further say that too often we treat them as discrete entities when in fact they are interrelated" (p. 316). While I focus on rhetorical arrangement to describe, in detail, some of the ways the four graphic designers use rhetoric during their composing processes, I do

want to acknowledge that arrangement and other rhetorical constructs are used in interwoven ways (see Chapters 2, 4, and 5).

Classical Rhetoric in Contemporary Multimodal Composing

As mentioned above, from a classical perspective, rhetoric is defined as the identification of the "available means of persuasion" (Arist. *Rhet.* I.2, 1356a1, trans. Kennedy). In other words, rhetoric can be understood as "a form of mental or emotional energy imparted to a communication to affect a situation in the interest of the speaker....rhetoric is a feature of all human communication" (Kennedy, 2007, p. 7). While most of the ancient Greek and Roman rhetoricians focused on oral rhetoric¹⁰, what is now called visual rhetoric has become an important aspect of contemporary rhetorical theory (Birdsell & Groarke, 1996; Blair, 1996; Handa, 2004). As I argue above, much of what is called "visual" rhetoric is more precisely "multimodal" rhetoric because of the use of multiple modes of representation in such texts. However, I will use the term "visual" in reference to another scholar's work and his/her use of the term when applicable.

The argument that rhetoric can be used to understand communication beyond the oral and print linguistic discourse of the ancient Greeks is supported by Kennedy's (2007) introductory discussion of Aristotle's *On Rhetoric*:

The great strength of *On Rhetoric* derives from its clear recognition (in contrast to views expressed by Plato) that rhetoric is a technique or tool applicable to any

1

¹⁰ While most of Aristotle's *On rhetoric* focuses on oral rhetoric, he does include a chapter on the style of written discourse. Additionally, the Romans (e.g. Cicero and Quintilian) often discuss writing as a means to an end: oral speech. I acknowledge that written discourse appears in the classical rhetorical works but that the primary focus was typically oral discourse.

subject and from the universality and utility of its basic, systematically organized, concepts. It provides a method for looking at rhetoric as a human phenomenon, for learning how to use it, and also for a system of criticism, in that the features of speech that Aristotle describes can be used not only to construct a speech, but also to analyze and evaluate other forms of discourse. (p. 20)

Despite this apparent strength, Kennedy (2007) suggests that Aristotle's work "needs to be expanded or revised to provide a complete, general rhetoric. With only occasional exceptions, its focus is on public address or civic discourse and is somewhat conditioned by the circumstances and conventions of the forms with which he was familiar" (p. 21). An example of such limitations is seen in Aristotle's primary focus on the oral qualities of discourse (see Graff, 2001 for a discussion of the few instances where Aristotle discusses style in terms of the visual qualities of print linguistic texts). While Aristotle did not have access to the term "multimodality" (Prior et al. 2007 does suggest that ancient Greek rhetoric is multimodal), the professional graphic designers discussed in this dissertation do act rhetorically during their multimodal composing processes. As mentioned above, this project is able to understand contemporary multimodal composing activity through a "rational reconstruction" of classical rhetorical theory (Schiappa, 1990). Schiappa (1990) explains how rational reconstruction allows researchers to "appreciate [classical rhetorical] thinking as contributing to contemporary rhetorical theory and criticism" (p. 193). This dissertation is not intended to "capture the past insofar as possible on its own terms" but instead offer a description of how rhetoric is used in contemporary graphic design processes (Schiappa, 1990, p. 194). I focus my

analysis on a rational reconstruction of rhetorical arrangement into descriptive dimensions of horizontal and vertical arrangement (see the beginning of Chapter 4 for an overview of arrangement).

As the classical perspective suggests, argument is a concept deeply rooted in rhetorical tradition, one connected with oral speech and words on the page: "most scholars who study argumentation theory are . . . preoccupied with methods of analyzing arguments which emphasize verbal elements and show little or no recognition of other possibilities, or even the relationship between words and other symbolic forms" (Birdsell & Groarke, 1996, p. 1). Because argument is an important part of rhetorical theory, the definition of "visual" argument has been highly contested. In addition, much of the work focuses on visual argument (or argument of another specific, single mode) and does not refer explicitly to "multimodal" arguments. Instead, as Birdsell and Groarke (1996) suggest, most of this scholarship focuses on texts that foreground the linguistic aspects of arguments, leading to a monomodal perspective of otherwise multimodal texts and textual practices.

With respect to broadening the purview of rhetorical argument, Finnegan (2001) argues that, "recent theoretical work on visual argument and the growing collection of case studies are firmly grounded in the belief that scholars of argument need to come to terms with the multiplicity of ways in which visual images participate in argumentation" (p. 134). Likewise, Blair (1996, 2004) explores the relationships between rhetoric, argument, and persuasion, discussing the difficulties and opportunities apparent in visual argument, and asks what the visual brings to argumentation. It is important to point out

that both words and ideas have meaning within a rhetorical context: "they are situated in the conventions of their usage communities" (Blair, 2004, p. 45). Blair's (2004) argument suggests the usefulness of understanding meaning making as occurring in the intersections between audience, text, and author rather than as inherent within a symbol system outside of any real context (despite his specific use of "visual"). My project focuses on the rhetorical qualities of four professional graphic designer's composing processes, specifically the use of rhetorical arrangement. As discussed in subsequent chapters, these four graphic designers consider audience, purpose, and context as integral to their processes. While not within the scope of the current project, additional research may include a more explicitly social framework by focusing on collaborative design processes and audience response.

While Blair (1996), Birdsell and Groarke (1996), and Finnegan (2001) focus specifically on what they call "visual" arguments, other theories of argument have been used to understand multimodal texts. For example, Whithaus (2012) uses Toulmin's (2003) model of argument to analyze two scientific, multimodal reports:

The two reports provide a corpus in which analogous rhetorical patterns develop during each document's argument. These rhetorical patterns, particularly the use of numeric and graphic evidence to support claims made in linguistic modes, suggest a model of argumentation that is multimodal in practice rather than primarily linguistic. (pp. 105-106)

Whithaus (2012) focuses specifically on the use of visual, numeric, and graphic elements as evidence for linguistic claims in the sample documents, arguing for an "updated

Toulmin model of argument—one that considers multimodal in addition to linguistic claim-evidence relationships" (p. 106). He suggests that a modified Toulmin (2003) model of argument should be sensitive to "site specific" conventions that influence the argument (Whithaus, 2012, p. 108). My project is an extension of the work on visual and multimodal composing done by scholars like Blair (1996, 2004) and Whithaus (2012)—however, while these two scholars analyze textual artifacts, I look primarily at the use of rhetoric within professional graphic design processes and not at argument specifically.

I suggest the need to expand the understanding of visual argument to "multimodal" argument because, quite often, these texts and practices do not employ only one mode of representation. By using the term "multimodal," we can better understand the complexities underlying these rhetorical activities and texts in ways that do not allow for oversimplification. To call the texts composed during this study only "visual" oversimplifies their rhetorical and modal complexities, and ignores the importance of spatial relationships between modes as a way of making meaning.

The problematic binary between form and function implies a separation between the appearance of a text and its purpose and content (see the discussion above regarding Kress and van Leeuwen's (2001) separation of content and expression). The four composing processes discussed in this dissertation illustrate the difficulty in teasing apart form and function as separate and distinct textual qualities. A focus on rhetoric and conventions pushes against the form/function binary that may overemphasize universal functional specialization of mode *outside of a specific rhetorical situation* (as I suggest above, however, modes do have specific qualities within a specific rhetorical situation as

well as basic sensory requirements). Additionally, a rhetorical perspective on multimodal composing allows for more theoretical complexity rather than the view that certain modes are nothing more than ornamental or additive. Instead of characterizing design elements as ornamental or additive (to the print linguistic elements), Kostelnick (1990) positions "visual language" as rhetorically complex:

Desktop publishing is changing the nature of practical communication because it places visual design at the heart of the composing process, giving us unprecedented power to articulate the text with typefaces, graphic cues, and spatial variations. These design elements, however, do not transmit the text passively: they are rhetorically active because they affect the reader's reception of the message. (p. 189)

Kostelnick's (1990) point that "visual language . . . is not merely a passive, 'objective' channel of information'" relates directly to Wysocki's (2004b) contention that design elements should not be used without purpose and a specific context (p. 198). A rhetorical understanding of multimodal composing (e.g. one that emphasizes audience, purpose, and context) highlights the importance of context, which, according to Kostelnick (1990), "determines the meaning of visual language" (p. 199). My findings expand on Kostlenick's (1990) work on visual language, and show how the designer's understanding of context greatly influences the creation of multimodal texts (see Chapter 2).

Often, scholarship relegates elements like color to a secondary, or additive, position. However, Richards and David (2005) argue that color is not merely decorative;

rather, color has important rhetorical power within a composition. They suggest that a rhetorical perspective of the use of color is more appropriate than a traditional functional/decorative binary: "by replacing the binary of color as either functional or decorative...we hope to help designers recognize the rhetorical potential of color, which is one of the first decorative elements to capture the eye" (Richards & David, 2005, p. 32). Richards and David (2005) offer a useful perspective on color through an analysis of various textual artifacts that suggests the need for additional research on professional composing process. For example, they argue, "once the essential meaning and purpose of a site, page, or other hypertextual unit has been clarified, technical communicators can devise rhetorically informed means of incorporating color in document design" (Richards & David, 2005, p. 45). My data suggests that the visual, verbal, graphic, and spatial elements of these designs are not additive or merely decorative, but are instead central to the text's overall purpose. Specifically, I describe how horizontal and vertical arrangement of graphic elements is used in these four design processes.

The potentially problematic dichotomy between form and function is also a key aspect of understanding the rhetorical qualities of multimodal composing processes and texts. While he does not explicitly separate elements of a text into those that serve as content and those that are strictly form-specific, Kostelnick (1990) makes the argument that "we see documents before we read them: this initial encounter evokes an aesthetic response but one with immediate practical consequences. Because seeing precedes reading, the reader's first glance influences the information processes that follows" (Kostelnick, 1990, p. 201). He suggests that a reader's initial response to these structural

elements indicates that visual elements "must be intrinsic to the rhetoric of the document," unfortunately it is difficult to separate "seeing" and "reading" without implying that one provides deeper meaning than the other (Kostelnick, 1990, p. 201). Arola (2010) approaches the problematic dichotomy of form and function by encouraging teachers and researchers of writing to "rethink the ways in which we might bring design to a discursive level, for while we might be losing the means of production, this should not keep us from questioning and embracing design's potential (p. 4). Often, design elements are pushed back beyond the written "content" of a document—in a sense, the design becomes transparent and is more easily ignored. While the divide between form and function as a problematic dichotomy is important to the context of this project, investigating it specifically within the four graphic design processes is not within this project's scope. However, future research may take on the role of form and function in these processes.

As an alternative to a strict form/function binary and additive view of modes, Kostelnick and Hassett (2003) offer a rhetorical approach to information design that focuses, instead, on design conventions: normalizing codes used by particular discourse communities for various purposes (e.g. the use of paragraphs, handwriting styles, web page formats, paper size, and margin size). They suggest that these codes change according to the rhetorical and communicative need at a particular time in history (Kostelnick and Hassett, 2003). Conventions relate to socially constructed norms based on the discursive reality and values of a particular community. Conventions do not inherently carry meaning apart from social and cultural contexts because they are *defined*

within and by those contexts. However, once these elements (e.g. paragraphs, writing style, etc.) are employed with these cultural codes in mind, they are connected to the social community's sense of meaning.

Conventions, in this sense, are highly rhetorical because they are constructed by and for specific discourse communities, again emphasizing the importance of context in meaning-making practices like graphic design. Kostelnick and Hassett (2003) argue that while various "strands of scholarship structure visual language around descriptive, communicative, and cognitive principles, [these scholars] focus largely on how readers encounter visual language in isolation from other such acts. However, readers seldom encounter visual language in perceptual, social, or historical vacuums" (p. 3). My data illustrate how four designers, during their composing processes, consider concepts such as context and audience in order to make specific, rhetorically sensitive decisions. Kostelnick and Hassett (2003) offer a "framework [for professional design practice and the classroom] for structuring visual language around a wide range of conventional practices" within specific discourse communities (p. 5). This framework is rooted in the assumption that "conventional practice is intrinsically rhetorical" and is illustrated through historical and textual examples (Kostelnick and Hassett, 2003, pp. 6-7).

Salinas (2002) suggests a similar approach to understanding and approaching design process by viewing such compositions as "configurations," implying the rhetorical qualities and understanding of conventions that underlie such work:

I argue that technical rhetoricians need to know how specific material elements constitute particular images (how content is artificially designed); how images are

written and spaced into particular contexts (how they are figured); how images are inscribed with identifiable values (what ideologies and cultural values they represent); and how images convey the particular interests of their makers (what identity or ethos they project). In other words, technical rhetoricians need to know how to read images as configurations possessing cultural signification and, by extension, how to design/write them. (pp. 166-167)

Salinas (2002) positions designers and professional communicators as "technical rhetoricians" who push beyond a purely functional view of design and towards a "strategic art of producing useful artifacts derived from a contextualized social savvy" (p. 172). Pushing against the form/function dichotomy (outside of a rhetorical situation) also moves beyond a view of multimodality as additive and decorative. This dissertation suggests that the four graphic design processes are not simply decorative or secondary to traditional print linguistic composing; rather, they use classical rhetoric in dimensional and layered ways to communicate (see Chapters 4 and 5 for examples).

While not from an explicitly rhetorical view, the New London Group (1996) offers a broad definition of design that implicitly demonstrates the importance of rhetorical conventions in these composing processes: "The key concept we introduce is that of Design, in which we are both inheritors of patterns and conventions of meaning and at the same time active designers of meaning" (p. 65). Designers, in this sense, draw upon a set of culturally- and socially-constructed conventions to create new meaning. For the New London Group (1996), designer is akin to composer: a person who draws upon and uses the available means and resources for making meaning. In addition, they argue

that this understanding of design emphasizes "the fact that meaning-making is an active and dynamic process, and not something governed by static rules" (New London Group, 1996, p. 74). Instead of static rules, conventions may contribute to a more rhetorically sensitive composing process through a connection to audience, purpose, and context. The emphasis on rhetorical design conventions opens up an understanding of multimodality and composition that moves beyond what the New London Group (1996) calls, "a carefully restricted project—restricted to formalized, monolingual, monocultural, and rule-governed forms of language" (p. 61). This view of design and designers emphasizes rhetorical choice within a specific historical, social, and cultural context. Those choices will be made within a specific community's conventions of use—not as strict rules of use but as ways of connecting to others within a specific context. My project supports the New London Group's (1996) claims regarding the situated quality of designing and design choices and extending those arguments to multimodal composing practices.

Invisible Activities and Technologies

To paraphrase Bruce Mau, this project intends to observe and describe the 99% invisible composing activity that shapes the contemporary world (Mau, 2004). As mentioned above, much of the research on multimodal composition focuses on final textual products. In order to better understand how rhetoric, specifically arrangement, is used to construct those texts, I focus not on textual artifacts, but on the composing processes, much of which are invisible in the final artifact—a small trace of the larger, complex process. By studying the activity that often remains behind final textual products, this project is intended to contribute a descriptive understanding of how

classical rhetoric works in contemporary multimodal composing. Key to this composing activity are the technologies and techniques that often remain invisible in the final product (see Chapter 5 for a discussion of writing and composing as technologies).

Scholars have suggested that the field is not paying enough attention to writing technologies (Selfe, 1999). In addition, others argue that there are numerous, diverse ways and reasons for integrating multimodal assignments into the composition classroom (Selfe, 2009; Sheppard, 2009; Shipka, 2005; Takayoshi, Hawisher, & Selfe, 2007; Yancey, 2004). In response, I suggest that there may be more of a tendency to collapse technology with multimodality and/or emphasize the tool itself over the rhetorical *use* of the tool. Sheppard (2009) agrees with this contention: "It is precisely stereotypes within the larger field of English studies about the technical, skill-based labor of multimedia production practices that I want to debunk by making visible the traditional and technological rhetorical complexity of this work" (p. 130). My dissertation addresses this issue in more detail by tracing the often-invisible connections between rhetorical choices, modes, and technologies with my observations and analyses of four professional graphic design processes (see Chapter 5 for examples of how composing technologies are used during these processes).

In terms of pedagogical research, Wysocki (2005) makes an important point regarding the technological aspects of multimodal composing:

If we are to help people in our classes learn how to compose texts that function as they hope, they need to consider how they use the spaces and not just one time that can be shaped on pages. They also need to question how they have come to understand the spaces of pages so that they can, if need be, use difference spaces, potentially powerful spaces that . . . have been rendered unavailable by naturalized [vs. conventionalized] unquestioned practice. (p. 57)

This argument emphasizes the modes, choices, and technologies that are invisible to composers because of naturalized practices regardless of whether the situation is academic or non-academic. By "naturalizing" certain practices, it becomes increasingly difficult to question the choices and use of those practices (Haas [1996] points to this with respect to writing technologies and is discussed further in Chapter 5). By naturalizing practices and rhetorical/composition elements, other, potentially powerful, "spaces" are no longer available to the composer—essentially, they become invisible.

Rhetorical sensitivity can help to reposition what was once invisible as something that is now an explicitly available means of persuasion. As Arola (2010) suggests, "the more seamless and invisible the technology becomes, the less we tend to know about how it works" (p. 5). My research suggests the need to better understand the available and invisible means within professional composing practice. The more invisible the process, the less we understand the rhetorical composing activity behind the texts we encounter.

Rhetorical choice also relates to the labor of composition (Takayoshi and Sullivan, 2007): composers must actively locate and use the available means of persuasion for a specific situation. It is important to note that while rhetoric points to locating and using the available means of persuasion, the *choices* in the *use* (e.g. the design) of those means are the crux of composition, not the means themselves. The

means are dynamically tied to the situation, and must be understood *contextually* and not as universals. Unfortunately, the rhetorical means are not always available:

We need to acknowledge and engage with the fact that new forms of writing in Web 2.0 often exclude design insofar as design is . . . the purposeful choice and arrangement of page elements. Though our students may choose a template in Blogger, Bebo, or MySpace with preformatted colors, fonts, and shapes, they rarely have the opportunity to create these choices for themselves. (Arola, 2010, p. 6)

While these tools can often be adjusted using HTML, such diverse rhetorical choices may not always be available to the composer. The issue of invisible choices highlights the role of affordances and constraints during composing activity. In Arola's example, a template is portrayed as the only available means. The "opportunity to create these choices" can be considered part of the available means (Arola, 2010, p. 6). By creating a hierarchy between strictly "formal" and strictly "functional" elements (again, outside of a specific context), other modes become separated from the linguistic "content" and are instead viewed as additive, ornamental aspects of a text. This additive, ornamental perspective may limit the means available to those that are valued more than others. Arola (2010) argues, ultimately, that design is not simply a "vessel" for the written "content" of a document (p. 13). A rhetorical analysis of in situ design process may help reveal what is invisible in a textual product: complex rhetorical activity.

Inquiry for the Classroom

While the purpose of this project is not primarily pedagogical, I do draw on work from classroom-based research because of its contribution to and proliferation in the current multimodality scholarship. Additionally, the pedagogical foundations of rhetoric and writing studies as a field require that I look at the connections between my research and composing practices in the classroom (see Chapter 6 for a brief discussion of pedagogical implications).

Diana George (2002) explains that through the history of composition as a field, the visual (and I add, the multimodal) has often been viewed as a secondary or novelty form of composition. George (2002) argues that the unaddressed confusion and ambivalence surrounding the place of the visual in the composition classroom contributes to "the visual figuring into the teaching of writing as a problematic, something added, an anomaly, a 'new' way of composing, or, somewhat cynically, as a strategy for adding relevance or interest to a required course" (p. 13). Shirley Wilson Logan (2006) mirrors these arguments and outlines a vision of college English courses that "provide students with certain communicative skills that enable them to analyze rhetorical effect and produce rhetorically effective texts, including those to be read, those to be viewed as images, those to be heard, and those not to be heard" (p. 107). This dissertation may help support arguments like George's (2002) and Logan's (2006) that imply the value of all forms of composing and meaning making, especially when approached rhetorically.

The importance of studying professional composing is supported in current research such as Eva Brumberger's (2007) survey of professional writers. Brumberger (2007) shows a compelling connection between the increased interest in visual

communication in the field of technical and professional communication and the practices of visual communication among professional writers in the contemporary workplace. In terms of teaching, her findings include "a resounding 94% [of respondents] felt that, based on their experiences in the workplace, the professional communication curriculum should include instruction in visual communication" (Brumberger, 2007, pp. 385-386). In order to meet the needs of contemporary composing situations, students of writing and professional communication need to be engaged with multiple modes of representation in a rhetorical manner:

Additionally, the data argue for instruction that marries theory and practice, concept and skill, and that gives particular weight to careful rhetorical decision-making regarding the design and layout of print documents. If practitioners' responsibilities range from designing standards to applying templates, from solving visual communication problems to editing visual material, then pedagogy must extend beyond coverage of rudimentary principles to a carefully integrated rhetorical understanding of design. (Brumberger, 2007, pp. 388-389)

Additional research, such as observations on working professionals, can help facilitate a smoother connection between classroom and workplace by helping "students to see the importance of integrating verbal and visual abilities" (Brumberger, 2007, p. 390). On a broader level, research on contemporary professional composing processes allows the field to gain knowledge regarding what people do when they engage in multimodal composing activity.

Rhetoric emphasizes the *contextual* nature of making meaning, and therefore remains useful for a wide range of composing situations, including design. Wysocki (2004b) highlights the relationship between composer, text, and audience—she argues that principles of design should be constructed rhetorically from that relationship and not presented as universalized rules. From Wysocki's (2004b) perspective, the relationship between audience, composer, and text creates the context for the designing process. Wysocki's (2004b) view here is primarily pedagogical; however, her articulation of rhetorical composing offers a useful alternative to the universal design principles so prevalent in contemporary textbooks and handbooks (where universal principles are treated without context).

Instead of emphasizing rhetorical concerns, many textbooks and design handbooks highlight over-simplified technical moves and logistical information (Sheppard, 2009). Studies like Sheppard's (2009) illustrate the importance of rhetorical sensitivity in multimodal composition. Likewise, Selfe (2009) argues that "the history of writing in U.S. composition instruction, as well as its contemporary legacy, functions to limit our professional understanding of composing as a multimodal rhetorical activity and deprive our students of valuable semiotic resources for making meaning" (p. 617). My project contributes to these issues by emphasizing the practices and rhetorical sensitivities of professional multimodal composers with the potential of highlighting those valuable resources. Composing process research can be brought back into the classroom to help students identify previously invisible rhetorical means (also, see Chapter 4 for a discussion of Schriver's (1997) document design work).

Another rhetorical, classroom-based perspective is Shipka's (2005) "task-based framework" for multimodal composing, which requires that the composer rhetorically consider and choose the form of the final product, the methods of producing that product, the material and intellectual resources used for production and dissemination of the product, and the final context for the reception of the product. Shipka's (2005) framework requires that the composer set goals within a specific composing context; those goals will help the composer produce a text while developing a sense of rhetorical responsibility. Emphasizing rhetorical choice is key to Shipka's (2005) framework, and while primarily pedagogical in nature, it does provide a model for understanding non-academic composers' choices and processes rather than a decontextualized textual product.

Regardless of whether it is focused on academic or non-academic situations, the work discussed here supports the importance of continuing to study rhetoric within a range of contemporary composing activity. To further contextualize this dissertation's contribution to the classroom, I turn to Selfe (2009), who argues:

I suggest we need to pay attention to *both* writing *and* aurality, *and* other composing modalities, as well. I hope to encourage teachers to develop an increasingly thoughtful understanding of a whole range of modalities and semiotic resources in their assignments and then to provide students the opportunities of developing expertise with *all available means* of persuasion and expression, so that they can function as literate citizens in a world where communications cross

geopolitical, cultural, and linguistic borders and are enriched rather than diminished by semiotic dimensionality. (p. 618)

I would like to extend Nardi and O'Day's (1999) argument regarding the invisibility of technology to the invisibility of composing processes as well: "some of what goes on in any setting is invisible unless you are open to seeing it" (p. 16). The complex, and often invisible, ways in which rhetoric is used in the everyday activity of professional graphic design processes deserve our attention.

Dissertation Overview

This chapter has explored many of the ways in which rhetoric, multimodality, and composing have been and are a part of the field of rhetoric and writing studies. I have attempted to clarify and complicate the key terms and concepts that contextualize the relevance and contribution of this dissertation. These ideas provide a foundation for the study discussed in the following chapters.

Chapter 2 offers a rich description and sense of place to provide context and background for the methodological and analytic chapters that follow. This chapter is not intended to provide the fine-grained analysis seen in Chapters 4 and 5. Rather, its purpose is to act as a contextual bridge between methods/methodology and analysis. I describe the four composing tasks, their respective rhetorical situations (audience, purpose, context), and how each designer approached and accomplished his/her specific task. The four composing processes recorded for this study occur over a long period of time (no less than an hour each), but the decisions and composing actions occur quickly, which required me to slow down and replay the recordings multiple times during data analysis.

This chapter allows me to provide a print-linguistic contextual snapshot for the composing processes that would otherwise be invisible to the reader.

Chapter 3 offers a discussion of the methodological issues and decisions made for both data collection and analysis. Primarily, data collection consisted of think-aloud protocols from four individual composing processes and supplementary interviews. The data set is multimodal: it includes print linguistic transcriptions of audio recorded during the interviews and think-aloud protocols. Additionally, the audio recordings were made simultaneously with video-screen capture recordings of the composing processes. Data was analyzed rhetorically using emergent codes with the goal of description, not grand theory.

Chapters 4 and 5 represent the bulk of data analysis by specifically describing the role of rhetoric in the composing processes recorded and analyzed. Specific rhetorical concepts are discussed in more detail in these chapters as they are best explained in the context of examples from the data set. In these two analysis chapters, I introduce and describe what I call horizontal and vertical arrangement.

Chapter 4 focuses on horizontal arrangement and the different ways of dimensionalizing that concept within micro and macro levels of the data. Horizontal arrangement is shown to be much more apparent in the final product than is vertical arrangement, a concept discussed through additional dimensions in Chapter 5. Vertical arrangement also allows me to explain how the invisible activity, technologies, and techniques are revealed through an analysis of the composing process.

Chapter 6 concludes the dissertation with a discussion of implications and generative questions for further research and practice. By using multimodal research methods to better understand rhetoric in multimodal composing processes, I suggest the following: 1) the importance of continuing to conduct research on the use of rhetoric in professional graphic design processes, and 2) bringing this research into the classroom to engage students with means that are often invisible.

CHAPTER 2

Creating Context for Analysis: Print-Linguistic Snapshots of Process

The purpose of this chapter is to contextualize the data analyzed in Chapters 4 and 5 by providing a sense of place and rich description of the composing tasks, processes, and the relevant rhetorical situations that guide the participants. Even though the four designers are not working primarily with print linguistic projects, their processes *are* rhetorical. Arrangement, as illustrated in Chapters 4 and 5, acts as an example for how rhetoric is used in these design processes, but in the current chapter, I offer a snapshot of a wider range of rhetoric in the data (see Tables 3.2 and 3.3 in Chapter 3). As mentioned in Chapter 1, this chapter is not intended to provide the kind of fine-grained analysis seen in later chapters—one reason why the organization here is by participant and not by specific codes or themes. Instead, Chapter 2 acts as a narrative context for the discussion of research methods/methodology and fine-grained analysis.

As discussed in Chapter 3, the think-aloud protocols ranged from approximately an hour to an hour and forty minutes, the data recorded is multimodal (aural, visual, temporal, spatial), and the rhetorical decision-making and knowledge work often occurs quickly in these recordings. Therefore, it is quite difficult to watch the think-aloud protocols and infer deep analytical knowledge without slowing them down and viewing them multiple times. The role of this current chapter is to provide the reader with some

understanding of the general rhetorical situations and background for each think-aloud protocol because the reader will not be able to watch these recordings in detail.

Additionally, the four composing processes discussed here do not always occur in easy-to-follow, step-by-step formats; rather, they are often recursive (the participants go back and forth reviewing previous decisions and creative moves), layered, and multi-dimensional (for more discussion of layering and dimensions, see Chapters 4 and 5). However, for the purposes of this chapter, I offer a summary description of each participant's composing process to contextualize the following analysis chapters. These summaries are necessarily reductive (due to limitations such as page length) and may seem a bit linear because they are print linguistic snapshots of much longer and complex multimodal composing processes. The problem of representing and describing these composing processes through a primarily print-linguistic medium (as in the traditional chapter-based dissertation) is discussed further in Chapter 6.

Finally, the multimodal composing processes at the center of this dissertation may be somewhat novel to a rhetoric and writing studies audience. Although a focus on multimodal composing processes has gained prominence in contemporary writing studies scholarship, this shift from a focus on (primarily) print-linguistic activities and artifacts is relatively recent. While studying and teaching multimodal composing and texts have become more popular within the field, much of the composing process involved is quite different from traditional print-linguistic writing. Therefore, this chapter will provide a useful description to bring clarity to composing processes and technologies that may be somewhat new to the writing studies reader.

Anne | Summer Camp Marketing Postcard

Anne is a freelance designer who works for a variety of clients including a summer camp, a local university, and a furniture store. For her think-aloud protocol, she created a marketing postcard for the summer camp (Figure 2.1). The postcard project is unique for Anne because 1) she has developed a client-designer relationship with the camp by working on many projects for them, and 2) because she attended this camp as a child and young adult—as a former camper and current mentor of her church youth group, she is intimately connected to the intended audience of this postcard.



Figure 2.1. Final screen capture of Anne's postcard.

Anne has developed a minimalist style and articulates that she is often fighting against the client's need to fit as many things as possible in the design. For the postcard project, the client envisions a photo collage, a genre not necessarily in harmony with

Anne's minimalist style. She initially struggles with the idea of a "busy" photo collage and struggles to balance her vision with that of the client. Here, the designer acts as a mediator between client and audience, always managing multiple needs to create an effective piece of communication that still retains a bit of her own personal touch.

Anne begins the project by setting up her digital workspace in Adobe InDesign, the industry standard page design program. By creating a document in InDesign that conforms to the intended output size and dimensions, Anne has the freedom to work within the space and not dwell on making decisions regarding materiality. Here, the constraints of the postcard (size, dimensions, shape) become affordances as they help Anne to manage the composing space within which she is able to work.

The main content of the postcard is comprised of camp photographs taken during the previous year. She reviews the collection, saving photographs that catch her eye for later review and possible use. Reviewing and saving photographs requires Anne to think ahead in the composing process. Sometimes she knows whether a photograph will work in the postcard, but other times is uncertain, so she saves a photograph in case it may be useful. Anne also uses the saved photographs as a memory tool to help with the composing process—while she may not use all the saved photographs initially, she may need to go back and look to remind her what kinds of photographs and subject matter are missing in the design.

Anne reviews all the photographs provided because she wants to know what she has to work with: "I like to see what images I'm gonna work with because they play such a strong part of the...what the overall design will look like" (personal communication,

March 16, 2012). Because she has worked with this client before, Anne knows what kind of photographs she will need for an effective postcard: a balance of people (ages, genders, ethnicities) that represent the positive aspects of camp. She also looks for photographs that will elicit a specific response from the intended audience: "pictures that are engaging that I think when people will see the card they'd say, 'I wanna be that person, I wanna go to [camp], I wanna be in that postcard doing what they're doing" (personal communication, March 16, 2012). She avoids photographs that do not positively represent the camp, such as those with phone lines in the background or campers who do not look happy and engaged. Anne also needs to avoid photographs that she used in previous postcards, even if a particular photograph is exceptional. Because the client sends a series of postcards over one summer season, she needs to think about how each postcard fits within a larger set. Part of her job as a designer is to create a postcard that speaks to all members of the diverse audience and works within a larger rhetorical situation:

I really feel like when people can zoom in on someone's face, they can say, "Oh that's me" or "That was me when I was a kid, I'm gonna send my kids here," or "I can really identify with that person and that happy state of life that I remember when I was at camp." (Anne, personal communication, March 16, 2012)

Anne also considers the arrangement and aesthetic appeal of the photographs, paying particular attention to the colors, emotions, and movements in each photograph. In

addition, subject matter size and the need for photo manipulation¹ also influence her decisions.

Anne then selects some photographs and arranges the photographs around on the screen as an invention tool: "it's almost like sketching on the screen....It's almost like if I was putting all of these pictures up on a bulletin board to look at quickly. I like to have things in front of me" (personal communication, March 16, 2012). Initial sketching helps with Anne's invention process, and she describes it as more "playful" than some of the routine work she does on the computer (personal communication, March 16, 2012).

Because this postcard will be composed primarily of photographs, it is easier and more productive for Anne to sketch digitally by moving various photographs around on the screen to develop ideas. Seeing how the photographs look together rather than individually helps to facilitate her creative process.

Once Anne has reviewed and initially sketched with the potential photographs, she begins placing them on the postcard to see how they might be rhetorically arranged (see Chapters 4 and 5 for specific discussions about arrangement). Much of the initial arrangement revolves around developing a reading path for the audience using the arrangement within and of the photographs. Some photographs need to be manipulated, cropped, or cut out to facilitate effective arrangement (see Chapter 4 for an extended analysis of this). Other considerations include distracting colors and shapes, what kind of background will work best, and context of photographs that are cut out or cropped. Size,

¹ Photo manipulation refers to a range of adjustments used by designers to make photographs work within a design more effectively. These adjustments may include cropping, lightening or darkening, and sharpening the photo—choices that often influence the overall rhetorical arrangement of the design.

in terms of what Anne actually sees on the screen at a time, can either help or hinder the creative process: "I'm gonna zoom out. Sometimes I have to really kind of step back from the actual frame so I'm not so close" (personal communication, March 16, 2012). What Anne is able to see on the screen affects how she makes decisions during the composing process.

At this point, Anne decides to move to the opposite side of the postcard to work on font choices and arrangement of words and to take a break from the photographs. Anne also sets up this side of the postcard in terms of design constraints: "I'm gonna cut this back of the postcard in half just so that I kind of know what space I need for the text and what size I have for the mailing panel" (personal communication, March 16, 2012). Much of what Anne does on the opposite side involves similar sketching and inventive moves, including preparing the required print linguistic content so that she knows with what means she has to work.

Font choice is another large part of Anne's composing process: "I feel like if I can have a good, solid set of fonts that kind of anchors the design, I can build around that" (personal communication, March 16, 2012). As she does with the other parts of the postcard, Anne has a specific invention exercise that she uses to choose fonts: "I'll pull down a new page in the postcard even though I'm not actually gonna use it and do a number of different font combinations and see what I like best. Again, it's almost a way of sketching on the computer" (personal communication, March 16, 2012). This page will not be a part of the final postcard. Instead, it acts as a sketching surface for choosing the best set of fonts. There are many elements to consider when choosing fonts for this

postcard, including audience, context, and readability. She also knows that her intended audience is composed mostly of adults (parents/guardians of campers), so she tries to stay away from the more "childish" fonts (Anne, personal communication, March 16, 2012).

Anne's process for choosing colors is similar to that of choosing fonts. She compares different options in terms of appropriateness for the project, hierarchy, and contrast: "One thing that I often do is make squares and overlap them so I can see what colors look like layered on top of one another. And then I'll go in and pick different colors" (Anne, personal communication, March 16, 2012). She draws on her past experience and working knowledge of colors, and explains how they need to be chosen in combinations of primary and secondary complementary colors that speak to the summer camp context—colors like blues, greens, and browns are particularly applicable. While choosing colors, she has to manage the constraints of the technologies at work: she is missing a color swatch book and has to make her choices by comparing tiny swatches on the screen.

Once Anne has selected potential color combinations, she saves her choices to the color palette tool and returns to the postcard to see how they look in the design as a whole. Seeing the colors in the context of the collage helps to make a more informed and rhetorical decision instead of relying simply on colors she thinks might work and avoiding those of which she is ambiguous. After looking at a turquoise and green combination in the context of the collage, Anne decides that it actually works better than her initial assumption (which had been made outside the context of the design).

Arranging the photographs and words is a fundamental part of Anne's composing process (see Chapters 4 and 5 for a detailed discussion of rhetorical arrangement in the data set). To better facilitate arrangement, Anne prefers to see the potential photographs within the actual postcard parameters (as opposed to flipping through them in the folder)—this provides context for the photographs and allows her to understand the scale of the postcard better. She finds creative ways of using the available means of persuasion without overly manipulating those means, including considering hierarchy (prominence and importance of elements), size and balance of elements, diversity of subject matter, quality of the photographs, and white space. At the end of her think-aloud protocol, Anne remarks that she often needs to take a break and step away from the project to clear her mind before finalizing the piece.

Eric | Illustration for a Magazine Article

Eric is an in-house designer at a publishing company but also does freelance design work for a variety of clients, including a design magazine. For his think-aloud protocol, Eric created an illustration to accompany an article within the design magazine (Figure 2.2). The article's focus is on attracting and retaining quality employees in the design industry. Because the magazine is published primarily for an audience composed of designers, Eric knows that he can take some risks and be playful with this illustration while still effectively communicating *and* remaining true to his personal style.

Eric begins with a hand-drawn sketch of a magnet with lightening bolts, scans the sketch, and opens it in Adobe Photoshop. He agrees with the editor (who originally suggested the magnet idea) that the magnet is "a decent idea, this is a big difficult

concept to illustrate [and the bolts] show the attraction [discussed in the article]" (Eric, personal communication, March 18, 2012). Much of his process requires thinking about the arrangement of the illustration in terms of placing elements across the design and building or creating individual elements and effects (see Chapter 4 for a more detailed discussion of this kind of arrangement).



Figure 2.2. Final screen capture of Eric's illustration.

Eric sets up the parameters of the illustration (e.g. output size and dimensions) and explains that he also needs to consider how the illustration will appear in other media, such as Pinterest²: "we're putting our stuff on Pinterest now, a lot more, and with these stories a lot of the entry point is with the illustration" (personal communication, March 18, 2012). While the illustration will be printed in the magazine, Eric also has to

² Pinterest is a social media platform that acts as a digital "pin board" of sorts where users upload and curate thematic boards of different images. Often, these images act as entry points to other web sites such as online magazines and blogs.

consider the possibility that it will be used online and think about the constraints that accompany that kind of distribution. Like most projects, he explains that there are multiple options for starting the illustration: "there's a couple different ways we could go about this" (Eric, personal communication, March 18, 2012). He also chooses to use his digital pen tablet instead of a mouse because it has a more fluid feel.

Eric's composing process includes quite a bit of attention to detail by perfecting the foundational elements such as the lines that construct the illustration. Making the design technically³ sound is extremely important so Eric uses various techniques that help him adjust the shapes and lines until they are as close to perfect as possible. He knows that the audience for this illustration is composed of designers, so he seems very motivated to make the illustration acceptable for an audience of peers.

Technical perfection does not completely comprise the illustration, however, and Eric wants to add "interest" to the magnet (personal communication, March 18, 2012). The magnet isn't very interesting or aesthetically appealing to look at as a "basic" magnet, so Eric decides to create stylistic elements in the shape and arrangement of the illustration (personal communication, March 18, 2012). Eric uses a Google image search for inspiration to get an idea of the commonplace notion of what a magnet should look like, so he knows what will be easily recognizable. Once he has an idea of what a

3

Technical expertise is extremely important to the four participants, who view the effectiveness of their work in relation to the craft and skill behind the designs. This technical skill appears throughout the composing processes in such ways as aligning text, removing unnecessary elements, and verifying color consistency across the design. In this way, it is difficult for me to separate technical decisions as something other than creative activity: both are rhetorical and contribute to the overall effectiveness of the design. However, I point out the term "technical" because it is used by the designers at times to describe what they are doing (in a sense, it is an in-vivo code. See Chapter 3 for more about in-vivo codes).

common magnet might look like, Eric can make it both easily recognizable *and* aesthetically interesting.

Other considerations include color and line sharpness. While the red and silver colors help the magnet look recognizable, Eric chooses to use the negative space between the magnet shapes for definition (instead of the more traditional approach of outlining the parts in black). This decision requires making additional technical adjustments: "I like having...a point, a little bit more of a fine point on my illustrations" (Eric, personal communication, March 18, 2012). These technical adjustments help to define the illustration and to add emphasis and aesthetic appeal to the magnet: "it's definitely better when you have more interest since this is a pretty basic drawing" (Eric, personal communication, March 18, 2012). While he uses more traditional colors in the magnet and lightening bolts, the lines and technical adjustments help to make the illustration distinctive and stand out from more commonplace magnet images.

Like Anne, Eric also wants to see what certain options look like in the context of the entire illustration. Rather than creating each individual part of the illustration separately, he uses the tools available in Adobe Creative Suite to flip back and forth between different layers and programs to fine-tune the illustration (see Chapter 4 for a more detailed discussion of these tools). However, there are software and hardware limitations that influence the Eric's composing process: "you deal with stuff like your screen, your monitor....I'm not really sure if these colors are actually representative of what this is gonna look like at this point" (personal communication, March 18, 2012). He

keeps these limitations in mind as he composes and makes necessary adjustments along the way.

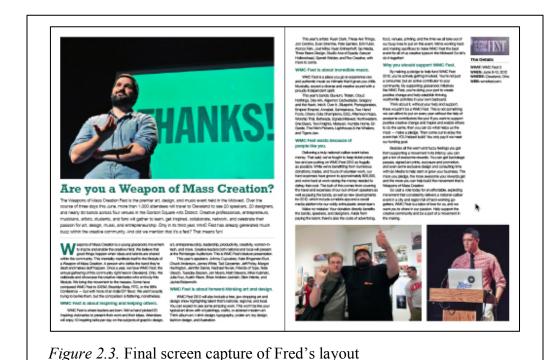
To add depth and interest, Eric creates a rough, asymmetrical pattern for the background. He does quite a bit of experimentation with various tools and effects to determine which will support a more effective and appealing background: "sometimes you just make off-the-cuff decisions....even mistakes, and sometimes that can just create....some interesting....new effects that you can't really count on dealing with when you first start working on something" (Eric, personal communication, March 18, 2012). This experimentation also requires that he flip back and forth between looking at the background alone and with the illustration. In addition, he uses a free-use texture and brush web site to find and download metal textures for the background. Much of this part of Eric's process involves trial and error until he sees what he likes best: "so much of what I do is kind of experimental" (personal communication, March 18, 2012).

Finally, Eric decides to choose fonts that will work best with the illustration for its respective audience. Because the audience is composed of designers, Eric knows which fonts are appropriate and not appropriate—he has an advantage here because, as a designer, he is part of the audience. He explains that some fonts are not appropriate because they might be too childish, boring, or cliché for an audience of designers: "Since this has a little bit more of a...funny angle to it, I could probably get away with using something like this, because it's just a little bit more....campy" (Eric, personal communication, March 18, 2012). He begins by typing three phrases from the article and then testing various font choices to see how they work within the entire design. Eric

decides to integrate words with the illustration to "make it a bit more literal" because he feels that the magnet and lightening bolts, by themselves, may not connect as well with the article (personal communication, March 18, 2012). He chooses a font that has both elegant and rustic qualities to balance the sharp edges of the magnet and rough background pattern. Originally, he had considered changing the color of the font (instead of basic black), but realized that the specific font in black has a "screen-printed" look that balances well with the roughness of the background pattern (Eric, personal communication, March 18, 2012). Even in these final choices, one can see Eric's creative, playful approach to this project: "I had a little bit more fun with this....because it's designed for designers....[I] can take chances" (personal communication, March 18, 2012).

Fred | Two-Page Feature Article Layout

Fred is an art director and designer at a marketing firm, but also does some freelance design work for various clients, including creating a two-page magazine layout for a feature article about an annual creative conference (Figure 2.3). While created for the think-aloud protocol only, Fred chose this task because it is illustrative of design techniques he uses regularly. He explains that the audience for this layout might be composed of interested conference-attendees; the conference is focused on creative activity which is mirrored in an audience of creative people, including designers, artists, and musicians. Fred is able to use photographs and information from the previous year's conference within his design.



Because of his background in production (he has previously worked in preparing designs for publication), Fred is very particular about details in his work. He begins the project by setting up his digital workspace in Adobe InDesign: "it just makes my mind work better" (personal communication, March 31, 2012). Like Anne and Eric, Fred also

prefers to begin his work by defining the dimension and size parameters of the design so that he knows what he has to work with: "I like to just know what I've got. And that helps me start to think about, like, where things can go....just in terms of this is what I have to work with, where things can go" (personal communication, March 31, 2012). In this way, the constraints outlining the project help to support the creative and rhetorical activity:

I'm just kinda getting everything where I can see it. Seeing how big everything is. Seeing what I'm gonna crop, what I'm gonna....And all this stuff may be in the final product, and it may not, but I just wanna know what I've got. (Fred, personal communication, March 31, 2012)

Identifying and analyzing the available means is key to all four of the composing processes discussed in this dissertation. Even more important is seeing how the available means appear within the constraints of the project and the technologies available. Fred sees "freedom in restriction:" if he knows what he has to work with and without, he is free to move forward and make creative and rhetorical decisions (personal communication, March 31, 2012). An absolutely blank slate might be, ironically, too constraining. Understanding the parameters and constraints of the project allows Fred to focus on potential and manageable options.

Fred decides to use a five-column grid as the underlying structure to the two-page layout. A grid system (discussed further in Chapter 4) gives the pages structural consistency and is a standard approach to this kind of page design. He decides to use the fifth column on the second page as a space to "play" in terms of rhetorical arrangement and content elements (Fred, personal communication, March 31, 2012). Additionally, the five-column grid will help guide Fred in creating effective hierarchy between elements while still having an underlying consistency. Ultimately, Fred explains that the design has to "make sense" to him in a felt, almost tacit, sense (personal communication, March 31, 2012).

He has quite a bit of text and a small selection of photographs with which to work and decides to choose a "hero" (dominant) photograph for the top of the left page (Fred, personal communication, March 31, 2012). The arrangement of this photograph helps guide the arrangement of the entire design (discussed more in Chapter 4). Here, the dominant photograph acts as a starting point for the reader, as Fred arranges his design to guide the reader's eye through hierarchy, color, and the overall modular quality of the layout. Throughout his process he zooms out to gauge the overall look and feel of the layout. This bird's eye view allows Fred to make decisions based on micro and macro perspectives. He also reviews any elements that he has not used in the design to determine whether anything particularly important is missing, such as a photograph or bit of information.

Fred's attention to detail is apparent in the meticulous adjustment of spacing at the end of each column. He zooms in very closely and uses guide lines and rulers to help him make minute adjustments such as the alignment of the text at the top and bottom of each page. Fred often overrides the software spacing and alignment default settings to make the text fit according to his perspective. He also pays close attention to color choices: Fred uses the eyedropper tool to select the exact green color from the dominant photograph and use the green in the headline and drop cap on the left page.

Once he is pleased with the left page, Fred decides to shift his focus to the right page (this is also something Anne chose to do). Besides making additional adjustments to the text alignment, he also makes decisions about the remaining photographs: "what kind of crop do I wanna use on these and how much of the...picture gets used in a certain

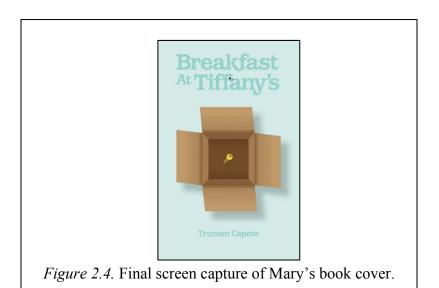
way....Even though somebody else took a picture...a lot of it's in my hands still" (Fred, personal communication, March 31, 2012). Like Anne, Fred also has the creative freedom and responsibility to adjust and manipulate photographs to work effectively within the overall design.

Fred chooses fonts based on readability and appropriateness for the clean, structured design of these two pages. Like much of his design, he also considers hierarchy in terms of typeface choices: "the body copy and the headline copy I have in here is a sans serif type. It's Helvetica, and it's really kinda antiseptic. So...I want something in a serif typeface; it's a good complement to it" (Fred, personal communication, March 31, 2012). This decision is made, in part, because Fred recognizes the importance of font choice when it comes to balancing primary and secondary elements in the design.

Fred creates two versions of the right page as different, yet viable, designs. He adjusts the arrangement of the photographs, text, and white space to see what a second version might look like. In the first version, Fred arranges two vertical photographs at the bottom of the second page to help balance the dominant hero photograph on the first page. He decides to create an alternative right page to "show [the client]. You know, when they look at it, whether they like this version or that version" (Fred, personal communication, March 31, 2012). The underlying grid structure gives this design a modular quality, affording Fred the ability to create multiple versions for the same project.

Mary | Book Cover

Mary is an art director and designer at a marketing firm and does occasional freelance design work for personal clients. She chose to create a book cover for her thinkaloud protocol because there were some techniques with which she was eager to experiment (Figure 2.4). The book cover (for *Breakfast at Tiffany's*) also allows her to practice representing a complex concept in a genre (book cover) for which she is not completely familiar. Like Fred's layout, Mary's project is illustrative of many of the techniques she uses regularly.



Prior to her think-aloud protocol, Mary hand-sketched a few ideas for her book cover. She used the sketches as a creative boost while beginning the design. Mary also does a bit of research for inspiration by doing a few Google image searches for some of her design's key elements: a cat, a cardboard box, and a key. Mary's initial interpretation

of the novel involves those three elements as metaphors for the main character's life. A major aspect of Mary's creative process is research:

I'll just research as much as I can....Do a lot of Google searches, do a lot of...image searches. See if any of those images spark any sort of concepts or maybe ways of manipulating the image in order to...put a little twist on the concept and make it a little more visually interesting. (personal communication, April 14, 2012)

While she uses these image searches as an invention tool, Mary explains that it is often easier to create her illustrations and images than to find exactly what she has in mind premade and available for purchase. Throughout her search process, Mary considers which elements will communicate the concept most effectively as a metaphor and at a relatively small size. Like the previous three participants, Mary recognizes the importance of understanding and working within the constraints of the design in terms of size, dimensions, and output.

Mary originally intended for her book cover to include a cat looking at a key at the bottom of a cardboard box. After completing the image searches and setting up the digital workspace, she determines that the cat may need to be omitted due to time and technique constraints. Part of this decision is based on her experiential knowledge of anticipating the length and difficulty of a project. However, she is convinced that the book cover will be an effective and simple approach with just the key at the bottom of a cardboard box.

Mary decides that she will be able to create the box in Adobe Illustrator relatively easily (this program is the industry standard for creating vector graphics and illustrations). However, she needs a model of a key to help guide that part of the book cover. Mary does a Google image search and decides that a simple, modern key (as opposed to an ornate, skeleton key) works better as a metaphor for this specific novel. After downloading an image of a key, Mary explains that because this is an experimental project that will not be used for publication, she is going to practice making a key based on the found image. If she were going to produce a publishable design, Mary acknowledges that she would need to create her own key from scratch or purchase the image for such use.

Mary uses drawing tools in Adobe Illustrator to create the flaps, sides, and bottom of the cardboard box. To make sure that the flaps and sides are balanced, she creates one of each and then flips it to produce a mirrored version. Additionally, she chooses tans and browns to give the box realistic coloring. After finalizing the basics of the box, Mary uses the guides and rulers to find the center of the book cover, and then places the box accordingly. At this point, she chooses to create the key and then move on to the creation of depth and dimension through the use of halftones.

Mary decides that she wants to mimic the key found in the Google image search.

To do this, she imports the key image, places it at the center of the cardboard box, and begins to create circles and other shapes on top of the key. Mary uses Adobe Illustrator's layer tool to create the shapes on individual layers so that she can manipulate each individually without affecting other parts of the illustration. She uses the eyedropper tool

to select the colors from the original key image, locate them in the color palette, and then use those colors in her illustration. While there are other ways to create this key, Mary explains that she has chosen to use single colors (instead of gradients, for example) because single colors work better during the printing process: "there's always a million different ways of achieving the same thing....I could have done this probably ten different ways" (personal communication, April 14, 2012). While she is creating this book cover as an experimental project, Mary does consider how her work will affect or be affected by final production processes, a habit developed over years of working as a designer.

Recently, a colleague gave Mary a selection of halftones, and she has been very curious to experiment with them. The book cover project allows her to practice and experiment with halftones in a way that she may not have been able to for a work-related project. Mary decides that the halftones might be useful as a shadow effect on the flaps of the cardboard box. She experiments with the halftones by applying and layering them as shadows on the box, struggling at times to make them fit perfectly while trying to make them appear as halftones and not traditional shadows. Ultimately, she comes away feeling somewhat ambiguous about the halftones in this project: while they look "interesting" close up, from far away they seem to fade into traditional shadows, which defeats the purpose of using them in the first place (Mary, personal communication, April 14, 2012).

Mary finalizes the box and key illustrations and opens them into an Adobe
InDesign document so that she can add the book title and author's name. First, however,
she chooses a background color for the book cover, settling on a turquoise that reminds

her of Tiffany blue: "I like that cause that's kinda like the Tiffany's color...to tie it in a little bit more. I wasn't planning on that but [it] totally just happened" (Mary, personal communication, April 14, 2012). After choosing and setting the background color, Mary types the title and author name so that she can choose fonts: "you could spend all day on [fonts]" (personal communication, April 14, 2012). For inspiration, she does a Google image search for *Breakfast at Tiffany's* and looks at the various fonts used for the title, ultimately choosing a typeface (from the type collection available on her computer) that looks both elegant and unique. This image search provides Mary with some models to help inspire and guide her own font choices. Mary realizes that the font she has chosen requires some kerning, or character spacing adjustment, to read more effectively (see Chapter 4 for a detailed discussion of kerning as a dimension of horizontal arrangement). Finally, she chooses a darker shade of the background turquoise as the color for the title and author's name. Mary realizes that she will need to adjust the size of the author's name so that the hierarchy on the cover will be more pronounced and ultimately, more effective.

Reflecting on the Rhetorical Situation

The contextual narratives and process descriptions discussed in this chapter offer a glimpse into the complex rhetorical composing processes of four professional graphic designers. As discussed in Chapter 1, while these four designers are not working primarily with print linguistic elements, their design processes are highly rhetorical. The rhetorical situation for each designer is different, however, it is clear that the audience,

purpose, and context for each project are important to a successful creative process and product.

Each designer must manage at least two different audiences: the client and the intended reader or user of the design. The client may consist of multiple people at an organization or business—this audience will ultimately determine whether the intended audience (reader or user) will actually encounter the design. Each designer must understand his or her client and the client's specific expectations for the project.

Additionally, the designers must identify and understand the intended *audience* for the design. Anne's audience is particularly difficult to manage, because it consists of both campers and their parents/guardians. The campers are not a homogenous group; rather, they consist of children and teenagers ranging from second-graders to high school seniors. While the campers may engage with the design at some point, it is ultimately the parents' or guardians' decision to pay for a summer camp experience. The parents/guardians may also be a mix of people, including those who have and have not attended this camp in their youth. All of these factors play in to Anne's decisions during her composing process.

The *purpose* of each design is also a driving force behind the effectiveness of the composing process. Anne's postcard has a marketing purpose, Eric's illustration is intended to grab the reader's attention and act as an entry point for the accompanying article, Fred's two-page layout must communicate information about a conference while enticing the reader to attend it in the future, and Mary's book cover is intended to attract a potential reader. However, each design involves layers of purpose woven among the

different elements and their respective interactions. Even the smallest decision has a purpose, both in support of the design as a whole and on an individual level. For example, Fred chooses to create a reading path by developing hierarchical relationships among different elements within the layout. Here, decisions such as size, color, and alignment support and are supported by the arrangement of those elements.

Each design's *context* brings complexity and complications to the decisions made during these composing processes. Anne's marketing postcard will be mailed to the intended audience weeks before the summer camp sessions begin. She needs to consider how to make the postcard appealing and interesting enough to grab the reader's attention and not get lost in a pile of mail. The postcards may also be displayed at churches affiliated with the camp and must stand out among other brochures and materials. Eric's illustration will accompany an article in a magazine and potentially be distributed online in a variety of ways. He considers, for example, how the illustration will appear in social media such as Pinterest. In that context, the illustration acts as an entry point for the article and he needs to manage that context as well as that of a traditional print magazine. Fred's layout is illustrative of designs for print magazine publication and is created among the constraints and affordances associated with that medium. Similarly, while Mary's design is also experimental and illustrative, she considers the production and distribution concerns related to the book cover genre.

In Chapters 4 and 5 I discuss the concepts of horizontal and vertical arrangement as a way to further describe the various dimensions and layers of rhetorical arrangement within these four composing processes. Horizontal and vertical arrangement are two ways

of understanding contemporary uses of the classical rhetorical canon of arrangement. In the classical sense, arrangement is understood, simply, as the organization and ordering of the elements within an argument. The composing processes discussed in this chapter set the stage for understanding how rhetorical arrangement works differently in multimodal composing processes—in ways that the classical rhetorical theorists do not (and may have been unable to) consider. Rather than the linear ordering of elements within a spoken or print linguistic argument, rhetorical arrangement occurs in horizontal and vertical ways that are revealed through a study of graphic design process and activity. The current chapter offers the reader a broad narrative look at some of the ways in which these four designers use rhetoric in their design processes. In Chapters 4 and 5, I provide detailed discussions of horizontal and vertical arrangement to illustrate, more specifically, some unique ways in which rhetoric is used in contemporary composing processes.

CHAPTER 3

Research Methodology and Methods for Analyzing Professional Design Processes

The overarching purpose of this project is to describe how four professional graphic designers use rhetoric in their design processes¹, specifically in terms of rhetorical arrangement. To address the purpose of rhetorical description, I ask the following research questions:

Overarching, conceptual question:

 What do professional design processes reveal about contemporary reconstructions of classical rhetoric?

Specifying question:

 How do professional graphic designers use rhetorical arrangement in their composing processes?

These questions were addressed through research methods designed to capture much of the rhetorical complexities of a set of four professional graphic design processes. The data collection methods include (and are discussed further below):

 Pre-interviews to develop a picture of each participant's design approach and background,

¹ As noted in Chapter 1, I observed *slices* of these four design processes. There are additional, important parts of these processes that were unfortunately not within the scope of this project.

- Think-aloud protocols (multimodal recording with video screen-capture and audio software) to create a trace of each participant's design process, and
- Stimulated recall retrospective interviews (using the video screen-capture recording to stimulate responses) to add another layer of context and insight into the design process recorded during the think-aloud protocols.

The Kent State University Institutional Review Board has approved the use of human subjects in this project on the condition of anonymity (each participant is referred to by a pseudonym). Each participant gave informed consent to take part in the project and agreed to the multimodal recording methods used for data collection and analysis. One participant, Anne, requested that faces in the photographs (in her marketing postcard) be blurred for anonymity of the photo subjects. Each data collection step was transcribed and segmented for purposes of a qualitative rhetorical analysis. I developed a coding scheme based on a classical rhetorical framework and identified emergent themes within the transcribed think-aloud protocol recordings (see Tables 3.2, 3.3, and 3.4). Interview data was used for context and background. These methods are discussed in detail below.

This chapter provides a discussion of the methodological perspectives and research methods used throughout this project. I first discuss, briefly, the participants, pointing the reader back to Chapter 2 for a detailed narrative summary of each participant's composing process as context for the analysis in Chapters 4 and 5. I then move to a discussion of data collection methods, data analysis methods, and end with methodological reflection.

Participants

The intended outcome of this project is that of a description of how classical rhetoric is used in professional graphic design processes (see Chapter 1 for a discussion of rational reconstruction; see Schiappa, 1990). To that end, I conducted interviews and think-aloud protocols with four professional graphic designers (see Chapter 2 for a more detailed summary and discussion of each participant's process):

- Anne², a freelance graphic designer who works for multiple clients, including a summer camp for which she created a marketing postcard;
- Eric, an in-house graphic designer at a book publishing company and part-time freelancer, created an illustration to accompany a feature article for a national design magazine;
- Fred, an art director at a marketing firm and a part-time freelancer, created a
 hypothetical two-page layout for a feature article about an upcoming creative
 conference;
- Mary, an art director for a marketing firm and a freelancer, created a hypothetical book cover to experiment with new techniques.

As a primarily exploratory and descriptive study, this project required a small sample size of four professional graphic designers:

An adequate sample size in qualitative research is one that permits—by virtue of not being too large—the deep, case-oriented analysis that is a hallmark

_

² See Table 3.1 for an overview of the participants and data collection.

of...qualitative inquiry, and that results in—by virtue of not being too small—a new and richly textured understanding of experience. (Sandelowski, 1995, p. 183) My purpose is not to provide generalizable³ conclusions from the data, but to lend generative insight into contemporary uses of classical rhetoric during graphic design activity. Smagorinsky (1994) argues,

Protocol researchers need to guard against generalizing from data that may only reflect a process occurring at a particular time and under particular conditions. Due to the small samples that protocol researchers typically work with, we might modestly claim that most such investigations are exploratory rather than conclusive. (p. 16)

The amount of data gathered for this project would have been unmanageable with a larger sample and, ultimately, would have produced a less rich and useful set of findings and implications. In addition, the amount of data I did gather required that I choose a manageable focus for the scope of the project (this is one reason why I chose to focus my coding and analysis on the think-aloud data and rely on the interview data for supplementary context only). I can argue, however, that my data and findings are uniquely exploratory and provide useful, rich descriptions of contemporary graphic design processes in situ—findings that offer generative questions and ideas to rhetoric and writing studies scholarship (see Chapter 6 for implications of this project).

Additionally, I chose to work with professional graphic designers and not graphic design students or other novices. Anne is a freelance graphic designer who works with

³ A larger sample size, in addition to other factors, *may* provide the possibility for more generalizable conclusions.

multiple clients including a summer camp, private university, and a furniture company. Eric is an in-house graphic designer at a craft book publishing company, but also works as a freelance designer for private clients, including a national design magazine. Fred and Mary are both art directors at a marketing firm in a large Midwest city and also do freelance work for private accounts. The four participants offer rhetorical approaches to composing that are steeped in experience and working knowledge. Suggestions for future inquiry are discussed in Chapter 6, referring, in part, to alternative sample groups such as professional graphic designers who work collaboratively on a project. For the current project, purpose and manageability guided the choices about sample size and participants.

Table 3.1

Overview of Participants and Data Collection

Participant	Professional Role	Think- Aloud Protocol	Duration of Think- Aloud Protocol	Duration of Retrospective Interview
Anne	Freelance designer	Marketing postcard for summer camp	102 minutes	37 minutes
Eric	Designer at a publishing company, freelance	Illustration for a web- based article	77 minutes	39 minutes
Fred	Creative director at a marketing firm, freelance	Two-page magazine layout	57 minutes	18 minutes
Mary	Creative director at a marketing firm, freelance	Book cover	86 minutes	46 minutes

Data Collection

To gain insight into the use of rhetoric in graphic design processes, this project uses a qualitative mixed methods approach to data collection, specifically through thinkaloud protocols. Think-aloud protocols are important to this project's data collection, because, as Bazerman (1988) argues, "understanding what people think they are doing gives insights into how they use words [and other modes] to accomplish those things" (p. 4). Drawing on data from the think-alouds, I analyze four different design processes to illuminate "where texts come from" in terms of rhetoric (Prior, 2004, p. 167). The ultimate goal is to describe some of the ways in which contemporary professional graphic designers use classical rhetoric. The following methods allowed me to collect data that addresses this purpose.

Preliminary Interviews

I interviewed each participant briefly before the think-aloud protocols. This approach helped to develop a research relationship and allowed me to gain insight into each participant's design background and design philosophy. The initial interviews also served as an information session for the participants to learn more about the consent process and what the data collection process requires. The primary structure of these interviews was ethnographic in nature, and was approached with both scripted questions and open-ended conversation (Prior, 2004; Spradley, 1979). The initial interviews did not refer to rhetorical concepts or any other conceptual aspect of the project (at no time during the data collection process did I reveal my rhetorical framework). Because these

⁴ See Table 3.1 for an overview of data collection methods in relation to each participant.

initial interviews were for background and logistical information only, I did not want to skew⁵ the think-aloud responses by revealing concepts related to my theoretical framework and purpose.

The following were used as starting points to spark the interview conversations, leaving room for relevant topics to arise organically:

- I asked each participant to define "design" in her/his own words.
- Each participant was asked to discuss her/his education and design work experience.
- Each participant was asked to discuss her/his "typical" approach to designing (if he/she considered any approach "typical").
- Follow-up questions and discussion points were developed during each conversation.

After reading through and segmenting the verbal data, I determined that the interview data would be most useful as supplementary to my focused analysis of the think-aloud data (see also the section below regarding the retrospective interviews).

Think-Aloud Protocols

I asked each participant to complete a think-aloud protocol. Because I am focused, primarily, on the use of rhetoric during these four graphic design *processes*, the think-aloud protocols provided the majority of the data for this project. Smagorinsky (1994a) argues that "protocol analysis . . . offers a unique glimpse into the workings of the human mind, and has a distinct persuasiveness due to the storytelling character of the

⁵ I do acknowledge, however, that my rhetorical approach influenced *my* observations and analyses.

data" (p. xiii)⁶. The use of supplementary interviews helps me to better understand the stories offered by the think-aloud protocols, but since they are reflections on and not core parts of the composing processes, the interviews are not part of the analyses in Chapters 4 and 5. Therefore, the interview data provided me with contextual understanding of the think-aloud protocol coding and analysis. When designing the study, I decided that the data collection methods would need to record, as much as possible, the multimodal qualities of the four composing processes. By using both video and audio recording, I was able to collect data that resembles (but, of course, does not and cannot equal) the original composing events.

Each participant completed a think-aloud protocol during a design task of his/her own choosing (a task required for his/her job or personal design needs). In order to observe how these designers use rhetoric in situ, the task must be as natural as possible. This is why I chose not to create an artificial or particularly "novel" task for these protocols. I do understand, though, that the inclusion of a think-aloud protocol presents artificial elements into an otherwise "natural" design task (e.g. artificial elements such as talking out loud during the process and the recording software running in the background). I also wanted to give the participants the freedom to choose a task. Leaving

-

⁶ I chose to use think-aloud protocols as the main data collection method with interview data to supply additional context. Think-aloud protocols have received criticism for using verbal reports as data because such reports are viewed as "impressions" filtered by the mind and emotion—not to mention concerns related to short- and long-term memory (Smagorinsky, 1995; Ericsson & Simon, 1993). While I find these criticisms important to consider, I argue that I do not have access to MRI machines and other types of brain scanning technologies that may (or may not) "reveal" thought and mental activity. Even if I did have access to such technologies, I acknowledge that the data from those devices is also highly interpreted (Burnett, 2005; Joyce, 2008). Images from brain scanning devices are not the brain, nor are they the thought event itself (Burnett, 2005; Joyce, 2008). They are interpretations of those events; interpretations of what the brain looks like during cognitive action (Burnett, 2005; Joyce, 2008). Instead, I used the most appropriate technologies and methods available for this project, my descriptive purposes, and rhetorical framework. These methods allowed me to offer useful and rich descriptive responses to my research questions.

the task choice to the participants allowed each person to feel comfortable with the possibility that verbal descriptions and screen captures of the designs may be published.

Much of the work these designers do comes with proprietary concerns regarding branding, copyright, and privacy (see the note above regarding the blurring of faces in Anne's postcard). By allowing the designers to choose the task, they were able to determine whether the content of that task would be appropriate for the possibility of future publication outside of their control. For those reasons, Mary and Fred chose experimental tasks that, while for hypothetical clients, are illustrative of the design tasks and techniques they regularly encounter. For me to gain access to these participants, I was required to work within a certain amount of constraint. One specific benefit of allowing the designers the freedom to choose and create a task is that they also demonstrate the inventive creativity required to develop the task and framing concept behind the design.

The protocols were completed at a time convenient for both the participants and myself instead of simply running in the background during working hours where the task might be disrupted and extended beyond manageability. Prior (2004) explains, "thinkaloud protocols have usually been attempted only in laboratory conditions while there has been an intense interest in studies of writing in naturalistic conditions (p. 180). In addition, Smagorinsky (1989) suggests that while "imposing *unnatural* writing conditions, the standard protocol method of recording a subject's utterance with prompts in a given time period can describe composing processes that parallel those that take place under *natural* conditions" (p. 474). I took a quasi-naturalistic approach to these

protocols: the environment in which the participants completed the protocols and the task completed were of his/her own choosing, but the protocol parameters and logistics did introduce artificialities into the process. Talking aloud during the composing process is also not necessarily "natural" for these participants. Neither is composing while two types of recording (audio and video screen capture) occur in the background. But, the inclusion of more "natural" elements into the protocols provided potentially more ideal conditions (than a lab setting with an "artificial" task) for the type of data I hoped to obtain. Additionally, I recognize that the verbalizations made during the protocols are not the designers' thoughts themselves but are actually *verbalized interpretations* of the mental activity occurring during the composing processes⁷.

The composing environments were relatively consistent across the four processes. Anne, Eric, and Mary chose to use their personal computers while Fred preferred to use my laptop because he did not want to install the screen capture software on his computer (all four processes were composed in the same Apple operating system). Each participant uses Adobe Creative Suite to complete design projects for work and personal purposes. Adobe Creative Suite is the industry standard for graphic design composing and as such, offers a way to understand four vastly different composing tasks completed in the same digital environment. In a sense, Adobe Creative Suite is a natural control environment that I did not artificially introduce. While this project is not intended to provide generalizable findings, the use of Adobe Creative Suite programs (InDesign, Illustrator,

7

⁷ Fox, Ericsson, and Best (2011) support Ericsson and Simon's (1980, 1993) non-reactive verbalization model by showing that "instructing participants to merely verbalize their thoughts during a task [does] not alter performance" (p. 333). I did not ask the participants to explain or judge their thoughts and actions, but instead requested that they simply verbalize their thoughts during composing.

and Photoshop) offers a way to *suggest* how the affordances and constraints of the software may influence graphic design processes (see Chapters 5 and 6 for additional analysis and implications related to composing technologies).

Participants received a description of the think-aloud protocol process and were then guided through a short practice protocol to help acclimate to the process. They were instructed not to give a "how-to" or instructional narrative, but instead to talk out loud whenever a thought enters the mind during the process, even if the thought might seem unrelated to the composing task. Each practice protocol involved asking the participants to talk out loud while doing basic tasks on the computer for a few minutes, such as opening folders and creating new documents in Adobe Creative Suite. This helped the participants to practice "thinking aloud" while doing tasks to which they were accustomed. In addition, I explained the general purposes of the protocol as a data gathering method for this project. As in the initial interviews, I made sure to avoid discussing rhetoric or other theoretical concepts related to my analysis, only explaining my interest in observing and recording what they do during a design task.

I was present for the duration of each think-aloud protocol to observe the processes and to prompt the participants during extended moments of silence (more than 15-30 seconds, as per Smagorinsky, 1994). When prompting the participants, I simply asked him or her to "please remember to think out loud" or "can you say what you are thinking?" so as not "cue particular responses by identifying specific processes or areas of content for the [participant] to attend to" (Smagorinsky, 1994, p. 5). Ultimately, I attempted to make the

process as transparent and comfortable as possible so that the participants were fully informed, both before and after the protocol.

The think-aloud protocols involved audio and video-screen capture recordings⁸ to create a multimodal trace of the composing processes. The purpose of these recordings was for data analysis and retrospective stimulated elicitation interviews. The think-aloud protocols and video screen captures were recorded via Camtasia (audio and visual recording). Camtasia allows for simultaneous audio and video screen capture recording. Backup audio recording was also completed using a small digital recorder placed next to each participant. The video screen capture recording was used to record the design process as it occurred on the computer screen, resulting in a video recording of the composing process. The audio and video screen capture recordings can be played simultaneously as a multimodal trace of each think-aloud protocol. This dual recording process allows the data to be viewed and analyzed on multiple levels, many of which are not within the scope of this project (see Chapter 6 for implications and future research trajectory). To keep the project manageable, I decided to focus on coding and analyzing the verbalization units from the think-aloud protocols while using video segments to make coding decisions when necessary. Also, screen captures from the videos are included in Chapters 4 and 5 to support my analysis of rhetorical arrangement in these four processes. All screen captures reproduced as figures in this dissertation are taken from the think-aloud protocol video recordings.

⁸ Future research may involve eye tracking to add an additional layer of data for understanding composing processes.

Retrospective Interviews with Stimulated Recall

Retrospective interviews were completed after the think-aloud protocols, leaving time for me to review the protocol recordings and develop questions based on the tasks. During the retrospective interviews, each participant was asked questions pertaining to the think-aloud session. These interviews were also audio-recorded for data analysis purposes. I used these sessions to better understand specific aspects of the think-aloud protocols. Instead of depending completely on each participant's memory of the task, Prior (2004) explains that "many researchers have found that an interviewee's responses become richer when the person interviewed has some external stimulus, some object that can trigger and support memory as well as serving as a source for new reflection" (p. 188-189). To potentially avoid issues related to memory loss, I utilized stimulated recall in which selections from the audio and video screen capture recordings were used to help elicit responses from each participant (DiPardo, 1994; Prior, 2004).

The retrospective interview questions were developed while reviewing the thinkaloud data, referring mostly to points of clarification or silent parts of the protocols, such as the following two examples:

Example 1. During Anne's think-aloud protocol, she mentions, "I feel like I need something more formal for this audience" in reference to a typeface called Dad Hand. She quickly moves to another thought and does not revisit her point specifically. After listening to her protocol, I was curious to find out more about what she was thinking in reference to audience and typeface formality. During the retrospective interview, I played

the video and audio recording of this moment and asked Anne to elaborate a bit on her thoughts at that moment.

Example 2. During Mary's retrospective interview, I played a segment of her think-aloud protocol in which she mentions the relationship between the concept behind the design and the arrangement of elements within the illustration. I wanted to know more about that relationship, so I played a portion of the think-aloud for Mary and then asked her to elaborate on her thoughts and actions at that moment. Her response prompted me to ask a follow-up question about the role of the audience in her composing process, which elicited another rich and useful response.

The use of multimodal stimulated recall during the retrospective interviews provided context and memory-stimulation for the questions asked. Like the initial interview data, the retrospective interview data did not become part of the qualitative rhetorical analysis. The interview data sets are quite different from the think-aloud protocol verbalizations, and to me, have a very different tone than the composing process data. While not part of the main think-aloud analysis, these interview responses do help me, as a researcher, to better understand the verbalizations and choices made during the think-aloud protocols.

Data Analysis

Two methods of data analysis were used in this project: 1) transcription and segmentation of interview and protocol verbal recordings, and 2) qualitative rhetorical analysis of the think-aloud verbal data supported by the visual data. Again, the purpose of this project is to provide a description of the use of classical rhetoric in contemporary

graphic design processes. The analytical framework involves identifying and describing "emergent" rhetorical themes within the data with a nod towards rational reconstruction of classical concepts for contemporary situations (Schiappa, 1990).

The analytical approach used can be described as a qualitative rhetorical analysis, which is a modified version of qualitative content analysis involving a data-derived coding scheme influenced by a rhetorical framework: "qualitative work is produced not from any 'pure' use of a method, but from the use of methods that are variously textured, toned, and hued" (Sandelowski, 2000, p. 337). While I approached the analysis from a rhetorical perspective, I did not apply a fixed external coding scheme upon the data.

Instead, I analyzed the data multiple times, adjusting the coding scheme according to my readings of the data (see Tables 3.2, 3.3, and 3.4 below). This approach resulted in findings that are colored by my own rhetorical perspectives: "Researchers seeking to describe an experience or event select what they will describe and, in the process of featuring certain aspects of it, begin to transform that experience or event" (Sandelowski, 2000, p. 335). Below, I discuss how I have interpreted aspects of these recorded composing process events as a description of classical rhetoric used in four contemporary processes.

Transcription as a Method of Data Analysis

Interview and think-aloud protocol audio recordings were transcribed using Transana to produce verbal data for analysis (Transana allows for transcription of video recordings). These transcriptions are not meant to be "the event," rather, they are constructs and (re)representations of the event (Green, Franquiz, & Dixon, 1997).

Likewise, transcriptions are not objective, static pieces of data; they are interpretations of the event (Green, Franquiz, & Dixon, 1997; Lapadat & Lindsay, 1999; Emerson, Fretz, & Shaw, 1995). Because I am focusing on the use of rhetoric during the four composing processes, I transcribed for ideas and not linguistic or discursive features (Lapadat & Lindsay, 1999; Emerson, Fretz, & Shaw, 1995). I recognize the incomplete and partial quality of transcripts and attempt not to provide a purely objective written translation of the verbal data, instead offering my rhetorical interpretation of the composing activity:

An activity is placed in a new social context where it is made to correspond to that new—in our case—academic framing. The transcript brings out the categories that are legitimate in this academic context; it views the 'original' observed activity through a professional lens which is, inevitably different from the lens through which the participants in the 'original' activity constructed it. (Bezemer and Mavers, 2011, p. 194)

It is for these reasons that I consider transcription to be an actively rhetorical method of data analysis.

Because I am looking at the ways in which rhetorical concepts are used in composing processes in situ, I segmented the transcribed verbal data into "verbalization units"—a unit of segmentation developed by Elling, Lentz, and de Jong (2012):

Verbalizations were divided into units which could include single words, but also clauses, sentences, and phrases. Unit borders were determined by pauses between verbalizations and by the content of these verbalizations, following the procedure used by Cooke and Eveland and Dunwoody. We chose to use the term

"verbalization units" instead of "thought units," because, in our opinion, verbalizations are manifestations of thoughts and not necessarily thoughts themselves. (212)

The use of "verbalization units" allows me to recognize the limitations of think-aloud protocols as self-reported interpretations of complex cognitive processes (see Figure 3.1 for a screen capture of a selection of segmented data). The four participants are verbalizing what they *interpret* is occurring in the mind. I am interested in the use of rhetoric in these four processes and analyzed the data for relevant themes and ideas. This data could be transcribed, segmented, and analyzed in multiple ways and it would end up looking quite different depending on the analytical framework employed. I view my transcription and segmentation approach appropriate for my specific purpose and project: "the 'accuracy' of a transcript is dependent not on the degree to which it is a 'replica' of reality, but how it facilitates a particular professional vision" (Bezemer and Mayers, 2011, p. 196). The choices made here reflect the scope and purpose of this project. While I transcribed and segmented the interviews and the think-aloud verbal data, I decided to focus further rhetorical analysis on the verbal data from the think-aloud protocols (supported by relevant selections from the video screen capture data). The coding discussed below and analyses in Chapters 4 and 5 are from the verbal think-aloud data (supported by screen capture data when necessary).

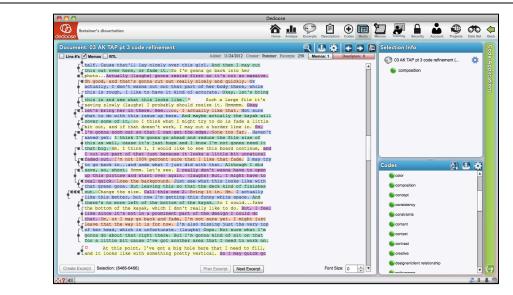


Figure 3.1. Screen capture of segmented and coded data in Dedoose. Each verbalization unit is indicated by a different highlight color (colors are applied arbitrarily by Dedoose to indicate separation between units).

Qualitative Rhetorical Analysis

As described above, the analytic approach to this project can be characterized as qualitative rhetorical analysis. I use a rhetorical perspective to understand and discuss the data collected, transcribed, and segmented. Smagorinsky (1994b) explains that the "coding system is the instrument that represents the import of the data" (p. 7). The coding scheme for this project was developed through open coding of emergent rhetorical themes. Instead of applying an externally developed coding scheme, I chose to use my rhetorical knowledge to guide multiple readings and subsequent coding of the data set. The themes identified did not "emerge" from the data (in the sense that they were inherently *in* the data). Instead, the thematic codes emerged from my rhetorical reading of

the data⁹. See Tables 3.2 and 3.3 for descriptions and frequencies of primary and secondary codes (primary codes occur more than 500 times in the data, while secondary codes occur less than 400 times).

Table 3.2

Frequency and Description of Primary Codes

Code	Description	Occurrence
Composition (Arrangement)	Refers to the horizontal and vertical <i>arrangement</i> of the design on macro and micro levels and described in multiple dimensions	852
Available means	Refers to the elements and tools available (can also be understood as <i>invention</i> , or the identification of the available means of persuasion)	781
Seeing	Refers to the need to "see" something in the design or to see how an option might work in the design—often to determine whether a choice is effective—"seeing it" and variants of this phrase are in-vivo codes	596
Content	Refers specifically to the content or subject matter of the design	582
Knowing	The designer's felt sense or understanding about the design choices and design—often an in vivo code	579

0

⁹ Because of the descriptive and exploratory purposes of this project, inter-rater reliability was not used. In a study designed to determine the consistency of inter-rater reliability within qualitative research, Armstrong, Gosling, Weinman, and Marteau (1997) found that their participants "did identify similar themes but there were significant differences in the way they were 'packaged'" (p. 601). As an alternative to reliability, Corbin and Strauss (2008) suggest the importance of *credibility*: "...the term 'credibility' indicates that findings are trustworthy and believable in that they reflect participants', researchers', and readers' experiences with a phenomenon but at the same time the explanation is only one of many possible 'plausible' interpretations possible from the data" (p. 302). To establish this credibility, I have attempted to provide a clear description of my research design, methods, theoretical framework—all elements that color the descriptive findings discussed in Chapters 4 and 5. To further support the credibility of my argument, I provide multiple examples of the multimodal data set along with rich descriptions of the rhetorical qualities of that data. Like Corbin and Strauss (2008), I acknowledge the multiplicity of interpretations that are possible from my data set. In this dissertation, I have provided one interpretation (among many others possible) based on my rhetorical reading of the data.

Table 3.3

Frequency and Description of Secondary Codes

Code	Description	Occurrence
Say(ing)	In vivo code referring to an instance when the designer wants to communicate something very specific in the design through thoughtful, rhetorical choices	362
Technical	Refers to technical terms, tools, and techniques	297
Color	Refers to the use of color	262
Experience	Referring to the designer's background knowledge or work experience	215
Sense of Like/Dislike	Refers to the designer stating his/her like or dislike for something within the design	213
Struggle	Statements that indicate the designer is struggling	170
Constraints	Limitations encountered	160
Fonts	Referring to font and typeface choices	137
Experiment	Testing an idea or option	113
Consistency	In-vivo code relating to the equal or similar use of certain elements and styles across a design	96
Personal style	Refers to the designer's explicit discussion of his/her personal style	86
Topoi: comparison	Refers to topoi of comparison	83
Topoi: circumstances	Refers to topoi of circumstance	62
Context	Refers to the environment and situation surrounding the design	60
Parts and whole	Reference to the use of parts and the whole design	47
Interest	Refers to the in-vivo code "interest" (e.g. "adding interest")	39
Audience	Referring to the audience	38
Hierarchy	Referring explicitly to the hierarchy in the design (e.g. often through dominant and subordinate elements)	36
Memory	Referring to the use of memory during the composing process	36
Research	Refers to research prior to or during the process (e.g. Google image searches)	
Creative	In-vivo code referring to a kind of subjective aesthetic quality	29
Appeals: pathos	Refers to the audience's emotions	23
Purpose	Refers to the designer's or project's purpose	18
Topoi: definition	Refers to topoi of definition	18

Contrast	In-vivo code related to the use of thoughtful and rhetorical variance in elements (e.g. color, shape, size to improve aesthetic or logistical qualities	17
Metaphor or symbol	Use of metaphors or symbolic qualities	16
Sketching	Sketching or referring to sketching	14
Designer/client relationship	Referring to the relationship between the designer and the client	13
Example	Using an example to illustrate a point	13
Surprises	Unexpected moments during the process	11
Balance	In-vivo code referring to the equal weight and/or relationship of two or more elements	10
Appeals: ethos	Referring to the designer or client's credibility	6
Appeals: logos	Referring to the logic of the content (see arrangement for logic of entire design)	6
Concept	Use of "concept" as an in-vivo code for the overarching communicative idea behind the design	4
Topoi: past/future	Refers to topoi of past/future	4
Topoi: relationship	Refers to topoi of relationships	1

After transcribing the verbal data, I imported the written transcripts into a data analysis program called Dedoose (see Figure 3.1 for a screen capture of the Dedoose interface). This program allows for analytic activity such as segmentation (Dedoose refers to segmented and coded units as "excerpts"), coding, and theoretical memoing (which can be embedded into the transcripts at relevant points).

The initial coding process resulted in codes that I determined were not generative because they were too vague or broad. For example, "choice" referred to making a decision or choice during the process. This code was too broad and vague a term to be useful for my analysis. Much of what had originally been coded as "choice" became better understood through other, more descriptive and specific codes. Additionally,

choice was difficult to code for, as most of the decisions made during the composing processes could be considered choices and it became difficult to determine what was not a choice.

I originally coded for verbalizations discussing process steps, but realized, as I did with the "choice" code, that process steps were descriptive of the entire composing process. Often, the designers made explicit statements regarding the process, but other times the process steps were more implicit. Regardless, coding for process steps was too broad and vague an approach and ultimately not useful for the project. Other codes described these activities more specifically and appropriately (see Tables 3.2 and 3.3).

While there are many interesting and potentially useful codes, I decided to focus on the most salient (and in-vivo) code: "composition." Because of the rhetorical nature of this project, I chose to reframe *composition* as the more rhetorically sound term *arrangement*.

From Composition to Arrangement

The term "composition" is an in-vivo code used by the participants to describe aspects of arrangement in the four composing processes (Corbin and Strauss, 2008). This code appeared more frequently than other codes within the think-aloud data and caught my eye as an intriguing and complex way to understand the use of rhetoric in the composing activity under study. However, composition is a concept deeply embedded within the larger field of rhetoric and composition, often used in different ways than that used in these four think-aloud protocols. Because this project is focused on discussing the *composing* processes, I became concerned that using the term "composition" would be

slightly confusing and problematic in that context. Additionally, I found that the events and artifacts described as composition were more aptly understood through a stronger rhetorical connection. It is for these reasons that I chose to use the term "arrangement" as a code for the verbalization units referring to compositional events, elements, and choices during the think-aloud protocols. My use of rhetorical arrangement in this dissertation is a rational reconstruction of the classical canon for these contemporary situations (Schiappa, 1990).

Table 3.4

Frequency of Horizontal and Vertical Arrangement

Participant	Horizontal Arrangement	Vertical Arrangement	Horizontal & Vertical Arrangement
Anne	213	49	38
Eric	136	47	5
Fred	125	0^{10}	0
Mary	273	118	66
Total	747	214	109

It became clear to me that arrangement occurred in the composing process data in ways not as apparent in the final textual artifacts—much of the arrangement is invisible (see Chapter 5 specifically). I initially saw arrangement as occurring on macro and micro levels within and between individual elements but also within the designs as a whole. However, these micro and macro levels were still not describing the layered qualities apparent in these processes. Ultimately, I began to see arrangement in dimensions defined

-

 $^{^{10}}$ See Chapter 5 for discussion about the lack of vertical arrangement in Fred's process.

by the temporal quality of the composing processes, where the participants were building the designs both horizontally (across) and vertically (layered) in the composing spaces (see descriptive dimensions and sample coded verbalization units in Chapters 4 and 5). The usefulness of understanding this activity within micro and macro levels of arrangement is best framed in the larger senses of horizontal and vertical arrangement.

In Chapters 4 and 5 I define and describe horizontal and vertical arrangement through multi-dimensional examples. These examples are not intended to be generalizable across all graphic design processes, but are instead illustrative of rhetorical arrangement as used in the four composing processes under study in this dissertation. Because the four participants and their respective composing tasks are unique, it is accurate to say that the use of arrangement within those examples is also unique. However, what might be generalizable to multimodal composing processes completed in Adobe Creative Suite is that of horizontal and vertical arrangement. Additional research into the use of horizontal and vertical arrangement in a larger sample of graphic design processes is needed to verify and elaborate on this possibility.

In terms of the current project, I argue that rhetorical arrangement in these four professional graphic design processes is multi-dimensional, creative, and layered—phenomena which are best observed over time in situ and not necessarily observed in a textual artifact. As illustrated in Table 3.4, horizontal and vertical arrangement are sometimes double-coded. This means that a verbalization unit has qualities or references to both horizontal and vertical arrangement, emphasizing the imbricated relationship

between the two (further examples of this can be seen in Chapter 5, particularly in Dimension 1).

The following two chapters offer a descriptive look into some of the unique ways that classical rhetoric, specifically arrangement, is used by these four designers during their composing processes. As discussed in the current chapter, I reframe the in vivo code, composition, into arrangement, which is then further divided into horizontal and vertical arrangement. In Chapters 4 and 5, I provide the reader with multiple dimensions through which to understand both horizontal and vertical arrangement. These dimensions are intended to be descriptive and are unique to the data set I gathered (I do not suggest that these dimensions are generalizable to other graphic design processes).

Methodological Reflections

In addition to the richly detailed and localized descriptions I offer (see Chapters 4 and 5), this project also raises new research questions. Some of these questions relate to the conditions of the protocols: What if the researcher creates and chooses the same composing task for all participants to tackle? What might the data look like if the thinkaloud protocols are collected without the researcher present? Other questions relate to use of single composers: What would the data look like if an explicitly social or collaborative component had been at work? If the protocols were conducted over a period of time and focused on one larger, collaborative composing project? Questions related to my coding and analysis approach also arose, particularly in terms of the use of emergent themes and patterns: What might my findings have been if I had applied an externally developed coding scheme? Or, if I had segmented and analyzed the data according to specifically

discursive qualities? If I had focused on a different code or set of codes (other than arrangement)? Additional research questions and implications of the methods and methodological perspective discussed in this chapter can be found in Chapter 6.

In light of these new questions, I am reminded of a thoughtful reflection from Smagorinsky (1994):

I propose that protocol analysis is above all a fundamentally *human* methodology, eliciting a sample of the thoughts that go through writers' minds, through a medium that can affect their behavior and which may be indeterminably complex due to interactions between the writer and researcher; and subjecting the data to the interpretations of people with biases, agendas, assumptions, and weaknesses.

(p. 16)

The story-telling qualities (Smagorinsky, 1994) of this project are articulated and described in Chapters 2, 4, and 5 with the hope that the reader will gain some insight into some of the ways these four professional graphic designers use rhetoric in their composing processes.

CHAPTER 4

Horizontal Arrangement in Professional Design Processes

Fundamental to classical rhetorical theory are the canons: invention, arrangement, style, memory, and delivery, which are summarized in Cicero's (trans. 1949) *De inventione* as a step-by-step model for the process of creating a speech:

Invention is the discovery of valid or seemingly valid arguments to render one's cause plausible. Arrangement is the distribution of arguments thus discovered in the proper order. [Style] is the fitting of the proper language to the invented matter. Memory is the firm mental grasp of matter and words. Delivery is the control of voice and body in a manner suitable to the dignity of the subject matter and the style. (1:7:9)

Generally, then, arrangement is classically understood as the ordering of elements within spoken or written discourse. Aristotle divides verbal discourse (a "speech") into a maximum of four distinct parts: "The necessary parts, then, are *prosthesis* [proposition] and *pistis* [proof]. These are, therefore, the parts that really belong [in every speech]; and at the most, prooemion, proposition, proof, and epilogue" (*Rhet.* III.13, 1414b4, trans. Kennedy). Cicero (trans. 1967), on the other hand, suggests the arrangement of five parts, consisting of an introduction, "narrating the facts of the case," "statement of the case," refutation, and conclusion (2:78-81, 320-332). Cicero also describes how to determine when to use the rhetorical appeals and the proper arrangement of various topics (see *De*

oratore, De inventione). Like Cicero, Quintilian (trans. 1856) placed great emphasis on the organization of verbal discourse, explaining how "arrangement [is] a due distribution of things and their parts in their proper places" (7:1:1).

While Aristotle tends to focus his efforts on invention and not arrangement, Cicero and Quintilian describe the use of arrangement in much more formulaic detail to the degree of developing heuristic formulas for different kinds of arguments. Quintilian (trans. 1856) does suggest the contextual nature of arrangement, and argues that the rhetor must "exercise his sagacity, his discernment, his invention, and his judgment, and must ask counsel from himself" (7:4). A rational reconstruction of rhetorical arrangement illustrates, perhaps even more so, the necessary flexibility in creativity and rhetorical savvy required by the multimodal composer (Schiappa, 1990).

However, Corbett and Connors (1999) suggest that, at its core, arrangement (here, disposition¹) is not simply a set of prescriptive formulas or templates:

All that rhetoric can do is point out that given this subject or this purpose or this audience, this is what writers may have to do in some part of the discourse, and this is how they might do what they have to do. Disposition then becomes something more than the conventional system for organizing a discourse, something more than just a system of outlining the composition; it becomes a discipline that trains writers in the judicious selection and use of available means to the desired end. (p. 293)

¹ Corbett and Connors' (1999) use of "disposition" is a nod to the classical Greek term for arrangement: *dispositio*.

In this way, arrangement is characterized as a heuristic tool (not a prescriptive template) for constructing effective communication from the available means of persuasion.

Likewise, the participants in this dissertation identify, select, and use the available means for each specific design task—mirroring the activity of rhetorical arrangement Corbett and Connors (1999) discuss. Often, a client gives the designer the subject matter and outlines specific parameters for a specific project. Other times, the designers have to choose from what's available to them based on the technological access they have (e.g. tools within Adobe Creative Suite, ideas sparked through a Google search, or fonts available). Regardless of what is available, the designers refer to the rhetorical situation that surrounds the project, constantly considering such things as audience (which can be quite complex, including the client and the intended reader), purpose, and context (as described in Chapter 2). In addition, there is often a felt sense of what design choices will be most effective for a specific rhetorical situation (see below for examples).

Even the more flexible understanding of classical arrangement suggested by Corbett and Connors (1999), remains focused on oral and print linguistic communication and neglects the use of arrangement in contemporary multimodal composing processes such as the four studied here. One approach to the gap in understanding rhetoric in multimodal composition is identified in Schriver's (1997) thorough textbook, *Dynamics in document design*. Schriver (1997) approaches document design (a type of multimodal composing related to the graphic design practices observed in my study) from a rhetorical perspective, offering heuristics based on empirical research rather than hard-and-fast universal design principles. She argues,

My point is that empirical studies can serve a very useful corrective function to document design practice. The findings of research needn't be turned into guidelines in order to be useful...In fact, studies that merely act to redirect practical action can be the most valuable...Research can help us to think more creatively about the writing and design problems that concern us. (Schriver, 1997, p. 277)

The purpose of my study is not to rewrite Schriver's (1997) work nor is it to argue against the use of traditional design principles. Instead, my intent is to describe the use of rhetoric in contemporary multimodal composing processes and to contribute an understanding of rhetorical arrangement in those processes. Essentially, this study offers options for thinking creatively about composing, as Schriver (1997) suggests above. The findings discussed in this chapter and in Chapter 5 describe how rhetorical arrangement is multidimensional, blurring the lines between form and function.

Specifically, I ask the following research question (as mentioned in Chapters 1 and 3): How do professional graphic designers use rhetorical arrangement in their composing processes? In terms of the four composing processes that I observed and recorded, I find that, from a rational reconstruction perspective, arrangement is used differently than the classical approaches suggest (Schiappa, 1990). The data show that these uses of arrangement involve much more than a linear ordering of specific predetermined elements within a spoken or print-linguistic argument. A rational reconstruction allows me to describe how this kind of multimodal arrangement is more dimensional than that suggested by the classical rhetoricians (Schiappa, 1990). Therefore,

classical rhetorical theory may need a revised understanding of arrangement inspired by data on contemporary multimodal composing processes. In addition, within multimodal composing, the five canons might best be understood as integrated rather than as separate entities. My findings suggest that the canons support and are supported by each other in many ways. In this project, I emphasize rhetorical arrangement in part because of its prominent role in the data set. However, I do not want to suggest that it is easy work to separate the canons. Instead, the examples that follow will include discussion of how other canons, namely invention and style, are imbricated with arrangement.

Arrangement in terms of my data is a creative and guiding rhetorical tool for making meaning in contemporary multimodal composing processes. In these four composing processes, the designers use arrangement to create new elements on a micro level and guide the creation of the entire design on a macro level. This is a rational reconstruction of classical arrangement as a "step" of the composing process that follows invention and precedes the use and application of style (Schiappa, 1990). However, the designers do not move from invention to delivery in a stark, linear process. Rather, they use these rhetorical canons throughout the composing process in nonlinear, recursive ways. Because of this, arrangement can be used, for example, as an inventive and creative tool (see dimension 5 below). To characterize rhetorical arrangement as the ordering of the available means in these four design processes vastly oversimplifies the actual rhetorical and creative activity at work. Even though these designs are static and two-dimensional (in terms of distribution materiality), I suggest that the use of arrangement is multidimensional and both supports and is supported by other rhetorical canons such as

style (which is generally understood as the way in which the available means are expressed in an argument).

This assertion supports Yancey's (2004) call for the bringing together of the rhetorical canons in a way that reveals their interconnected relationships:

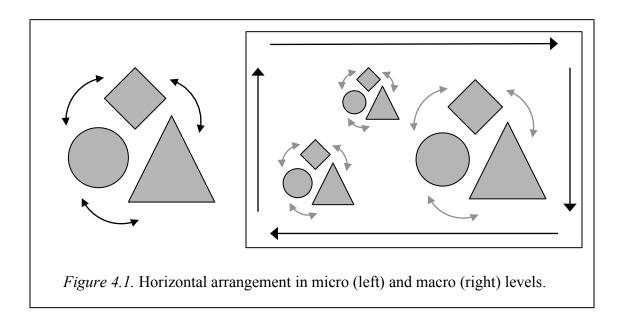
The potential of arrangement is a function of delivery, and *what and how you arrange*—which becomes a function of the medium you choose—*is who you invent*. Moreover, I suspect that as multiple means of delivery become more routinized, we will understand *each* of the canons differently, and we will understand and be able to map their interrelationships. (pp. 317-318)

While Yancey (2004) is focusing on the relationship between arrangement and delivery and not the role of arrangement in the composing process of professional multimodal composers (as is the focus of my study), the importance of her point is clear: the canons are less a set of separate, discrete steps and more an interrelated constellation of rhetorical and creative tools. Again, because I do not want to create artificial separation between the canons, I also show, below, how arrangement works in tandem with style and invention (as examples). Arrangement is the focus of this project in part due to its prominent role in the data set, but also because it has not been the focus of much scholarship (in contrast to invention and style, for example).

Understanding Horizontal Arrangement

What I am calling horizontal and vertical arrangement offers dimensional ways to understand and articulate how arrangement is used in contemporary multimodal composing processes. These terms offer rhetoric and writing studies potential ways to

understand arrangement based on in situ data from contemporary graphic design processes. This chapter will describe some of the ways horizontal arrangement occurs during the four graphic design processes observed. Chapter 5 will discuss dimensions of vertical arrangement.



As discussed in Chapter 3, the most salient theme in the think-aloud (composing process) data is composition—a code I reframe as arrangement to have a stronger rhetorical connection. The segmented verbalization units coded as composition (arrangement) were then further coded as horizontal and/or vertical arrangement. I then took a step back and read the think-aloud data with an eye for instances where horizontal and/or vertical arrangement occurred in each participant's design process. I used these analytical readings to pull out unique descriptive dimensions of verbal and visual data from the think-aloud protocols to illustrate, in this chapter, horizontal arrangement (see

Chapter 5 for vertical arrangement). Examples of verbalization units coded for horizontal arrangement can be seen in Tables 4.1, 4.2, 4.3, and 4.4.

Table 4.1

Example Coding for Horizontal Arrangement in Eric's Process

Verbalization Unit	Explanation
So I'm gonna switch it up so that the magnety part, the attraction part is kinda at the top of the illustration.	Adjusts the angle of the magnet sketch on the canvas.
I was initially thinking that maybe I would write like put copy along the, um, bottom of the illustration, kind of along the curve of the magnet	Reflects on initial decision to arrange the words along the curved edge of the magnet.
Uh, actually I wanna angle it a little bit more, because I am gonna put type in here.	Decides to adjust the angle of the magnet to make room for the words.
And again, this is kind of a compositionas-you-go.	Reflects on adapting the design's arrangement as the composing process progresses.
On the initial sketch I had like some words going around this side,	Reflects, again, on his initial arrangement decision.
But, that, um, I prefer having the words kind of being actually attracted by the magnet,	Decides that the arrangement of the words would work better by showing attraction (a reference to the concept behind the design: attracting employees).

Table 4.2

Example Coding for Horizontal Arrangement in Fred's Process

Verbalization Unit	Explanation
Um, I set this up on a real traditional kinda	Reflects on his decision to use a five-column grid
five column grid, um, where you use like	structure to arrange the design.
two sets of two, and then you have a fifth	
column to play with if you wanna to use	
for, like, just spare information and stuff.	
I just kinda wanna make sure that things have a, that there's a reason and a rhyme for everything.	Wants to use the grid structure to support the purpose and logic behind the arrangement.

So I set this up to have a 3/8ths inch margin, and every column is half of that, and I wanna kinda maintain the same, the the same distances, you know,	Verbalizes his choices and reasons for the arrangement of the grid structure in terms of measurements between columns and column width.
So, um, and one of the things I like about this five column grid versus, versus, um, you know, your more standard,	Expresses why he likes the five-column grid to help the arrangement of his design.
There's more like a modularity to things.	The horizontal arrangement of the grid structure is modular.
So, and instead of flowing this into one column, we're gonna spread it out wide across here and make it a little bigger.	Decides to arrange the body copy of the story across multiple columns instead of in five single columns.

Table 4.3

Example Coding for Horizontal Arrangement in Anne's Process

Verbalization Unit	Explanation
I like asymmetrical things that have lines that might guide an eye around the postcard.	Chooses photos that have asymmetrical horizontal arrangement to help create a reading path in her postcard.
Somehow movement that will direct the viewer's eye across the design.	Creates a sense of movement through each photo's arrangement to support the reading path.
I don't like, um, to, people [photo subjects] looking off of the page,	Avoids certain kinds of arrangement. In this instance, she avoids arranging photos that will result in the subject looking off the postcard.
I want them [photo subjects] to be looking into the page so that, um, the eye is continually directed around the design.	Arranges photos so the subjects are looking into the postcard.
For example, I wouldn't put this boy sliding off onto the right	Decides against a certain arrangement (photo at the right side of the postcard).
So he actually works really nice in the top left.	Chooses, instead, to arrange the photograph in the top left corner so that the subject is "sliding" into the center of the postcard.

Table 4.4

Example Coding for Horizontal Arrangement in Mary's Process

Verbalization Unit	Explanation
This spacing is all goofy.	Reflects on the default arrangement (kerning: character spacing) of her font choice. Determines the default kerning is not effective.
So I'm gonna kern it a little bit.	Chooses to adjust the arrangement of the characters.
Tighten these up.	Continues to adjust the distance between characters by moving them closer together.
I'm just kind of visually seeing, like, does that, you, you kinda wanna make the space equal when you read it.	Determines whether the adjusted arrangement (kerning) is effective.
Um, and sometimes, like, with letters that are on the slant here, you know, you wanna bring them a little bit tighter than you have the other words,	Reflects on the arrangement requirements of different character shapes. Some characters require more kerning than others because of their shape.
You know, like what, as far as like, readability and legibility goes, like what's going to, um, guide the person's eye to, um, the best.	Considers why she is adjusting the arrangement of the characters: to improve readability and guide the reader's eye.

In the data collected for this study, the use of horizontal arrangement can be described in multiple dimensions within two main areas: micro and macro levels (see Figure 4.1 for a graphic representation). The dimensions discussed in this chapter are unique descriptive examples of how horizontal arrangement works within these two levels:

• Micro level: As the arrangement of individual elements within the design.

In this way, horizontal arrangement refers to the logical structure of and interaction between elements within the design. Often, these are pre-existing, external elements that the designer did not create him/herself

(e.g. photographs). On a more specifically creative level, this kind of arrangement can also be used to create new elements within the design (e.g., by arranging shapes and lines to creative deliberate negative space). This characterizes horizontal arrangement more as a creative and inventive tool with multiple uses. Again, this kind of horizontal arrangement is seen on a *micro* level in terms of one element or the interactions between a few elements.

• Macro level: As the arrangement of the design as a whole. This characterizes arrangement more broadly in terms of specific elements and their relationship to the overall design in its entirety. Here, the horizontal arrangement of different elements on a micro level directly affects the overall horizontal arrangement on a larger, macro level.

Horizontal arrangement can be understood through data derived from observing the act of arranging (as a verb) and the arrangement itself (as a noun). The focus of this study is on the use of rhetoric during the composing process, not the final product. However, process and product are not separate, and the interaction between the two is an important aspect of understanding horizontal and vertical arrangement. The composing processes observed for this dissertation illustrate the messy, recursive activity that contemporary theories of composition suggest are the norm (as opposed to the notion that composition occurs in a neat, linear process, not unlike the idea that composing begins at invention and moves straight through to delivery). The complexities of the composing process are mirrored in the complexities of the rhetorical canons: arrangement is not the simple

ordering of multimodal elements. Rather, it appears among the other rhetorical canons within a complex and recursive composing process.

The act of arranging (verb) occurs with the arranged design itself (noun) and, likewise, the arranged design cannot exist without the process of arranging. In addition, the arranged design (noun) can refer to the design at any point during the design process, not only to the final product. However, the various incarnations of the unfinished arrangement (perhaps akin to multiple rough drafts) may be invisible in final product. The many versions of the arrangement are extremely important to the final product, but are still hidden within the composing process. These distinctions allow me to suggest that arrangement in these four design processes is much more than the simple ordering of the available means and, instead, occurs and exists across dimensions and the composing process.

Five dimensions of horizontal arrangement are described below using verbal and visual examples from the think-aloud data:

- **Dimension 1:** Horizontal arrangement to indicate energy and relationships. While the designs composed by the four participants are static, primarily print-based designs, the designers do use arrangement as a way to indicate relationships and connections between elements. Additionally, the horizontal arrangement can be used to include energy and a dynamic quality to otherwise "flat" designs.
- **Dimension 2:** Horizontal arrangement to facilitate modularity. In one specific design, the composer arranges elements to support the creation of

multiple versions of the design for different purposes. This specific approach gives the design a modular quality based on an underlying grid structure.

- Dimension 3: Horizontal arrangement to create a specific reading path.

 The arrangement of elements within the design can indicate, to the audience, how the document might best be read. These are not linear compositions (in the sense that a more traditional print linguistic essay might be considered linear). Because of this non-linearity, the designers must introduce, through horizontal arrangement, some form of reading path to help guide the audience through the design.
- **Dimension 4:** Horizontal arrangement to improve readability. This dimension is illustrated through the example of kerning, or character spacing, to show how the arrangement of letters can improve readability.
- **Dimension 5:** Horizontal arrangement to create new elements and negative space. This dimension is an explicitly creative way to understand arrangement. Rather than viewing arrangement of existing elements like photographs, this dimension shows how the designers actively create new elements and negative space by arranging graphics elements such as lines and columns.

The verbal examples are derived from the audio recording of the think-aloud protocols. The supporting visual examples are screen captures derived from the think-aloud protocol video screen recordings. These dimensions are not exhaustive; rather, they

are *major descriptive facets* of horizontal arrangement as it occurs in the data collected for this study. Additionally, the dimensions discussed here are specific to these four unique designers, processes, and tasks, which, while not necessarily generalizable to all multimodal composing processes, offer a glimpse into what these specific practices entail. By reconstructing the classical understanding of rhetorical arrangement, this study offers new insight into the use of classical rhetoric in contemporary multimodal composing processes (Schiappa, 1990).

Dimension 1: Horizontal Arrangement to Indicate Energy and Relationships

In this dimension, horizontal arrangement is used to indicate energy and relationships between elements across the entire design. While these are essentially static designs for print-based media (they do not include moving, time-constrained elements), the study participants use horizontal arrangement to give the designs a dynamic quality. The energy and relationships shown in the data reflect Schriver's (1997) concept of rhetorical clusters: "We can think of a document as a field of interacting rhetorical clusters. If the document is well designed, the clusters orchestrate a web of converging meanings, which enable readers to form a coherent and consistent idea of the content" (p. 344). The following examples illustrate how these interacting elements work within this dimension of horizontal arrangement.

Eric created an illustration² to accompany an article about attracting and keeping energetic and creative employees. This illustration is for a design publication with an

_

² See Figure 4.2 to better understand how Eric's composing processes uses dimension 1 of horizontal arrangement.

audience composed primarily of members of the design community. His illustration involves a stylized magnet attracting three phrases to act as "a graphic representation of what the story's about" (Eric, personal communication, March 18, 2012). In general, the illustration is "pretty basic, it's just like a magnet with some bolts coming off of it just to show the attraction" (Eric, personal communication, March 18, 2012). However, the use of horizontal arrangement to *communicate attraction* within a static illustration is anything but basic and mundane; it requires a keen rhetorical sense of cultural knowledge and symbolism to visually communicate a complicated concept. Eric explains that while the "story isn't really about magnets," the magnet acts as a symbol for the underlying concept: how to attract and keep the best employees (personal communication, March 18, 2012).

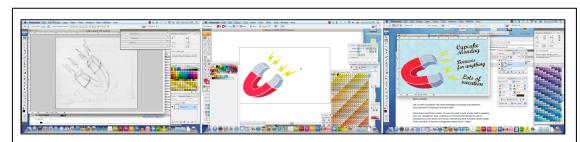


Figure 4.2. Dimension 1 illustrated in three screen captures from Eric's composing process.

The three screen captures in Figure 4.2 illustrate how horizontal arrangement indicates energy and relationships between elements in the design acting as a rhetorical cluster (Schriver, 1997). The data shows how horizontal arrangement facilitates this dynamic interaction in a way that is not yet accounted for in current multimodal scholarship, which focuses primarily on the use of modes in finished textual artifacts.

While Eric's design, for example, does not include explicitly dynamic elements (e.g. movement through video), he does arrangement the parts of the design to include a dynamic, active sense.

The first screen capture in Figure 4.2 shows Eric's original sketch of a magnet and lightning bolts. Before scanning in the sketch, Eric had written words around the curve of the magnet but decided to erase them (the erasing can be seen faintly in the sketch as some smudging around the curve of the magnet):

So I'm gonna switch it up so that the magnety part, the attraction part is kinda at the top of the illustration. And, the other thing I wanted to do with this is you can see I kinda wrote some text. I was initially thinking that maybe I would write like put copy along the, um, bottom of the illustration, kind of along the curve of the magnet, but I decided that just wasn't, that wasn't looking good, so I got rid of it by erasing it. (personal communication, March 18, 2012)

In this example, Eric draws on his professional knowledge and an almost tacit sense of what kind of arrangement will work most effectively. If a certain arrangement does not appeal to Eric, he will try other options until satisfied. These other options can be considered alternative available means that may end up either as part of the final product or may be unused. This decision-making illustrates how Corbett and Connors (1999) describe arrangement: as "a discipline that trains writers in the judicious selection and use of the available means to the desired end" (p. 293). Eric's choices are not made arbitrarily, rather, they rely on his sense of the rhetorical situation and what design will best meet the needs of that situation.

In the second screen capture in Figure 4.2, the scanned sketch has been replaced by a colorized, digital illustration of a magnet and lightning bolts. Eric used the scanned sketch as a guide for creating the digital illustration within the vector graphics program Adobe Illustrator. He revised the horizontal arrangement so that the magnet is in the left half of the illustration and the bolts are on the right. This revised horizontal arrangement facilitates left-to-right reading that is common with Eric's audience (horizontal arrangement and reading paths will be discussed in dimension three below).

The third screen capture in Figure 4.2 shows the final version of Eric's illustration. Here, the magnet and lightning bolts are attracting the words in a way that creates a sense of energy between elements in the design and also shows connections between those elements through a left-to-right reading path: "on the initial sketch I had like some words going around this side, but, that....I prefer having the words kind of being actually attracted by the magnet (Eric, personal communication, March 18, 2012)." Guiding the eye through a specific reading path (via horizontal arrangement) is a key part of these design processes and will be discussed later in this chapter (see dimension three below).

The horizontal arrangement of Eric's illustration, particularly the magnet, is based, in part, on the use of $endoxa^3$ (the generally-accepted depiction of a magnet). This use of cultural knowledge of visual symbolism is illustrated in Schriver's (1997) argument that "reading is a social act in that it depends on a community that shares meaning yet it is also an individual act in that it depends critically on the reader's unique knowledge, attitudes, and values" (p. 364). The common interpretation of a magnet as a symbol for

_

³ Endoxa, according to Aristotle, refers to "commonly held opinions" (Rhet. I.1, 1355a11, trans. Kennedy).

attraction is created in the interaction between reader, text, author, and social space. Eric uses his understanding of what his audience will expect a magnet to look like in order to arrange lines and shapes to create the magnet. He begins with a sketch of the magnet (first screen capture in Figure 4.2), and then does an image search in Google to generate ideas for refining his magnet design. The image search allows Eric to both reinforce his own understanding of what a magnet looks like and also help him decide what the cultural understanding of a magnet refers to as a visual icon:

Sometimes what I'll do to get inspiration is I'll just like type in magnet into the Google and do an image search and whatever comes up there I won't usually do but at least it gives me an idea of what other people, like or just like the real basic idea of what people come up with when they...think about magnets. (personal communication, March 18, 2012)

In this way, horizontal arrangement in Eric's original sketch was supported by the inventive strategy of the Google image search and the "judicious" use of the available means (Corbett & Connors, 1999). This shows one way the rhetorical canon, invention, supports and coincides with horizontal arrangement.

After looking through the Google image search results, Eric decides to use certain recognizable elements as a part of his magnet, including metallic ends and the use of red: "as you can see from my sketch I mean I'm kinda right on with uh, the way it kind of looks, with the, I'm gonna go with a more metallic look on the ends and then like a red bar" (personal communication, March 18, 2012). The purpose here is to catch his audience's attention and to facilitate instantaneous communication behind the design

concept:

Ideally I want these shapes to be kind of....To look interesting, because....It's just a magnet, so it's not really, it's not really that cool to look at by itself, so I wanna give it some sort of interest so that it's a little bit more of a graphic and not just a really basic drawing of a, of a magnet. (Eric, personal communication, March 18, 2012)

In terms of keeping the audience's attention, Eric wants to add "interest" to the magnet illustration so that it is stylized in a way that makes it unique among other common images of magnets while still being instantly recognizable (personal communication, March 18, 2012). The magnet is a culturally accepted symbol for attraction, which allows it to communicate the concept behind Eric's illustration. He is using a conventionalized symbol to communicate a complex idea in a way that stands out among other similar images of magnets: "it's important when you're doing the illustrations to make it kind of easily recognizable....Like a lot of times when you're doing these kinds of things it's...about being instantaneous" (Eric, personal communication, March 18, 2012). However, the use of specific stylized elements, such as shapes and lines, supports the horizontal arrangement in a way that makes it unique and pushes beyond the commonplace cultural icon. Eric also uses horizontally-arranged negative space (discussed further in dimension five): "so now I've got these, shapes.... As you can see it's gonna be a little tricky cause I am kind of making, doing sort of an advanced move here by creating my own lines....Just with the negative space" (personal communication, March 18, 2012). Rather than creating lines and arranging them into the magnet's outline, Eric decides to create the different shapes of the magnet and arrange them in a way that is structured by the negative space between the shapes. Eric uses the available means to compose a recognizable symbol with energy that communicates a complex concept.

Another example of this dimension is illustrated in Fred's two-page magazine layout⁴ involving multiple photographs and a large amount of text. In order to create interaction between those multimodal elements, Fred needs to add stylistic qualities to enhance the horizontal arrangement of the various elements. He chooses a dominant photograph to begin the magazine spread on the left page: "what I'm gonna definitely try to do is have this hero image here and then just kind of make everything else react to that" (Fred, personal communication, March 31, 2012). The use of a dominant photograph also supports an intended reading path in the design (see dimension three below). Like Eric, Fred uses horizontal arrangement to show that certain elements relate to each other in dynamic ways.

For Fred, the various elements in the design need to "react" to each other (personal communication, March 31, 2012). For example, in the screen captures shown in Figure 4.3, Fred uses a dominant photograph and arranges the other elements to "react" to that image (personal communication, March 31, 2012). In this example, a hierarchy of dominant and subordinate elements supports horizontal arrangement. For example, the dominant photograph is the largest and most colorful element in the design. It is placed in a prominent spot on the left page above the headline and first paragraph:

So I've decided to turn this initial heading into our headline....And that initial

⁴ See Figure 4.3 to better understand how Fred's composing process uses dimension 1 of horizontal arrangement.

paragraph into...a hero kind of paragraph....Kind of like what you would see as more of an intro thing would...be more prominent and larger and type sized than the rest of the body copy. (Fred, personal communication, March 31, 2012)

The horizontal arrangement of the dominant hero photograph supports the placement of other elements in the design. The close proximity and visual consistency (use of green) between the dominant photograph, the headline, and the first paragraph suggest a starting point for the reader. In this way, the elements react to the dominant photograph and create a reading path on the page, a phenomenon that will be discussed in the next section of this chapter.



Figure 4.3. Dimensions 1, 2, 3, and 5 illustrated in three screen captures from Fred's composing process.

Here, horizontal arrangement is described in examples drawn from Eric and Fred's composing processes. Dimension 1 illustrates how horizontal arrangement helps the composer to establish relationships between various elements within a design. The connections between various elements (such as the use of dominant and subordinate elements that "react" to each other within Fred's layout) suggest a feeling of energy in an otherwise static, print-based document.

Dimension 2: Horizontal Arrangement to Facilitate Modularity

This dimension illustrates how horizontal arrangement can be used to create modular designs to support the production of multiple final versions for one project.

Modularity, here, refers to the creation of elements that fit within a five-column grid structure. These elements are modular in that they are shaped and sized to facilitate horizontal arrangement within the grid, and can be arranged to create multiple versions of the same design. In the following example, Fred's two-page magazine layout⁵ offers an example of how an underlying grid contributes to modular design via horizontal arrangement.

In terms of design, a grid is an underlying structure that supports consistency in the overall design: "one of the things I like about this five column grid versus....your more standard.....There's more like a modularity to things" (Fred, personal communication, March 31, 2012). A grid is not necessarily a template with predetermined placement of elements. Rather, there are a set number of columns for each page that offer a basic structure to support the entire design. Schriver (1997) explains that the grid "organizes the space by dividing it into columns and rows which specify where visual or verbal elements can be placed. A key feature of a grid is its modularity" (p. 338). This modularity is seen in Fred's project, where the design of each page begins with five columns of equal size. Because of this underlying structure, Fred is able to create multiple versions for the project that each has unique qualities but still contains a visual consistency that supports unification in the overall document (e.g. the magazine in which

⁵ See Figure 4.3 to better understand how Fred's composing process uses dimension 2 of horizontal arrangement.

the two-page layout will be published). These multiple versions can then be presented to the client as the available means from which to choose for the final version.

The use of a grid system shows that Fred is following the accepted conventions of the design community. Because the grid system has had longevity in the design field, its use has also become *endoxa* because the use of a grid is quite conventional in Western publications. In a sense, conventional grid structures have become invisible to readers:

Users are socialized in conventional practices, sometimes through formal training, oftentimes through a process of informal enculturation, until the conventions become habits of mind....For designers, they supply a wealth of ready-made forms that can be adapted to specific situations; for readers, they supply interpretive short-cuts to making meaning. (Kostelnick & Hassett, 2003, pp. 23-24)

In terms of rhetorical appeals, the use of a grid is a nod to rhetorical logos as an underlying visual logic to the design. Horizontal arrangement that occurs within the underlying grid structure will typically result in an aesthetically appealing and accessible design for this type of project. While over-use of grids can lead to visually dull, formulaic designs, Schriver (1997) explains that grids can have a heuristic value: "grids can be used rhetorically—that is, as invention tools for working through alternatives for structuring a document visually" (p. 341). Fred's design process illustrates this heuristic in situ, and suggests that the logic of grid-based horizontal arrangement can be inventive, and not necessarily restrictive, when used rhetorically. The conventional quality of the five-column grid allows Fred the freedom to play with modularity and produce variations on

the underlying structure.

In both final versions (see the second and third screen capture in Figure 4.3), major elements remain the same or quite similar. The main difference is in the arrangement of the elements on the right page. The first page in each version is the same, partly due to the use of the dominant photograph discussed previously. Both versions rely on a strict hierarchy in terms of image size and color (the dominant photograph is the largest and also the most striking in its use of the color green). In both versions, hierarchy is supported by the use of rhetorical style: the size of the photographs and the use of color.

This dimension is specific to Fred's composing process. He uses the term "modularity" as an in-vivo code to describe a specific flexible quality of this specific project. Additionally, the modularity of this design is directly supported by Fred's use of an underlying grid structure to guide the horizontal arrangement of the modular elements to produce multiple versions of the same design. Fred's project is the only one that uses a grid structure and emphasizes the modular quality of that approach. Because these dimensions are meant to be descriptive of the different ways in which horizontal arrangement occurs in these composing processes (and not as generalizable uses of arrangement), Fred's use of modularity appears as its own dimension to add complexity to horizontal arrangement.

Dimension 3: Horizontal Arrangement to Create a Specific Reading Path

In this dimension, horizontal arrangement is used to construct a specific reading path across the design. My data mirrors Schriver's (1997) suggestion that document designers should "think of the layout as a guide for the reader to scan the text. Plan a

typical path for the reader's eye to travel through the page, spread, or display" (p. 349). In this dimension, specific elements are styled and arranged strategically to help guide the viewer's eye across the page along a determined path. Horizontal arrangement is used to guide the logic of the design in terms of structure, attention, and interest. The use of *endoxa* and conventions in these designs also support the arrangement of intended reading paths. Three of the four designers discuss, explicitly, the construction of a specific reading path during their think-aloud protocols. In the following examples, the designers compose reading paths by drawing on hierarchical relationships, pre-existing arrangement (within photographs), and the use of asymmetry.

Fred wants to create a specific reading path across his two-page magazine layout⁶: "I definitely want....a hierarchy of importance and you know, the way your eye goes and stuff" (personal communication, March 31, 2012). The arrangement of elements is supported by the use of hierarchy: the dominant photograph is placed on the top of the first page. Its large, dominant size and bright color draw the reader into the page. The reaction of other elements to the dominant photograph is also seen in the placement of the major headline. Fred uses the green from the dominant photograph as the color for the headline to further support the connection between those elements. In addition, the use of a green drop cap connects the dominant photograph and headline to the smaller body copy. A typical left-to-right Western reading path draws the reader's eye from the first page to the second.

⁶ See Figure 4.3 to better understand how Fred's composing process uses dimension 3 of horizontal arrangement.

In addition to hierarchy, other techniques such as the use of symmetry/asymmetry and pre-existing arrangement (such as that occurring within photographs) support the creation of a reading path. Anne's project is a marketing postcard⁷ for a summer camp involving multiple photographs, cropping, photo manipulation, and other elements such as color and words. She choses photos based on a variety of factors, including asymmetry in the arrangement within a photograph: "I tend to like photos that aren't just...looking straight on and someone perfectly symmetrical. I like asymmetrical things that have lines that might guide an eye around the postcard" (Anne, personal communication, March 16, 2012). Because of her design expertise, she knows that asymmetrical photographs can often be more visually appealing than perfectly symmetrical photographs. Anne also explains how the use of interesting asymmetrical elements can work to create a reading path within her design (e.g. the movement of lines within a photograph contributes to the movement within the overall arrangement of the postcard).

After choosing photos to use, Anne moves on to decide how she wants to horizontally arrange those photos within the postcard: "I'm gonna start from here...Typically what I like to do is have some movement across the page either going from the top left to the bottom right, the bottom left to the top right; somehow movement that will direct the viewer's eye across the design" (personal communication, March 16, 2012). One of the factors she considers is the desired reading path: how she wants the viewer to read the postcard. By strategically choosing and arranging specific photographs, Anne can construct a specific reading path through a sense of movement

⁷ See Figure 4.4 to better understand how Anne's composing process uses dimension 3 of horizontal arrangement.

within what appears to be a static design. Again, while Anne's project is a static print postcard, the elements within have a degree of interaction and energy that supports movement through the design. She horizontally arranges the elements so that the reader's eye is constantly drawn around the postcard.



Figure 4.4. Dimension 3 illustrated in a screen capture from Anne's composing process.

In terms of a specific arrangement strategy, Anne considers the original arrangement of a photograph (or cropped elements of a photograph) before determining where that photograph should be placed on the postcard. In one specific example (see the screen capture in Figure 4.4), she refers to the direction of the subject of a photograph:

I don't like...people looking off of the page, I want them to be looking into the page so that...the eye is continually directed around the design. For example, I wouldn't put this boy sliding off onto the right because I feel like then the viewer's

eye is going to leave the page, so he actually works really nice in the top left.

(Anne, personal communication, March 16, 2012)

Because the subject is sliding to the right, she decides to place him at the top left of the postcard so that he slides into the postcard. If she had placed him on the right side of the postcard, he would be sliding off the postcard, and therefore would lead the viewer away from the postcard. By creating movement through the placement of energetic photographs, Anne can guide the viewer's eye around the design and not away prematurely: "I'm thinking that this picture will start on the right hand side of the page...so we can direct the eye back in to the other figures (personal communication, March 16, 2012). Horizontal arrangement within a photograph (e.g. the angle of a photo subject) can contribute to the horizontal arrangement of elements and a reading path within the postcard: "This one's nice in that these girls could be...oops...cut out. I may try to do that; that's kind of nice. I like how that looks there. And again like, I'm getting this kind of by luck, this angle of her body that's gonna bring, bring the eye over" (Anne, personal communication, March 16, 2012). Here, horizontal arrangement can be seen on micro and macro levels: within the photographs (micro) and within the whole postcard (macro).

In this dimension, elements are horizontally arranged across the design to create a reading path for the audience. These reading paths are constructed through additional rhetorical considerations such as hierarchy and color cues. Additionally, pre-existing elements (such as photographs provided to Mary by the client) come with internal horizontal arrangement that must be considered. Mary looks for photographs that have an

internal horizontal arrangement that will support the reading path of her postcard. The arrangement of elements across the designs, in terms of this dimension, is intended to influence how the audience reads and engages with the design.

Dimension 4: Horizontal Arrangement to Improve Readability

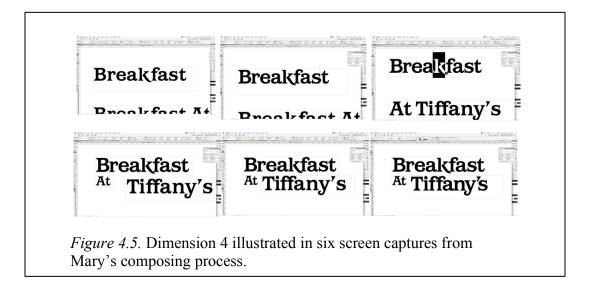
One of the more invisible aspects of horizontal arrangement involves kerning, or adjusting the spacing between characters. Transparency here refers to the idea that kerning is not as obvious in the final product to the layperson (the primary audience of Mary's design). However, kerning is much more obvious during the design process and in a comparison on various process stages and drafts. As a dimension of horizontal arrangement, kerning is also another way to illustrate rhetorical clustering: the designer makes deliberate decisions about the connections between characters beyond their linguistic meaning (Schriver, 1997). In the screen captures shown in Figure 4.5, Mary kerns the spacing between the letters in her book title⁸ and discusses the reasons for her decisions. This involves arranging letters closer together or farther apart to improve the overall readability of the words. In addition, Mary considers the impact of character size on readability.

Mary decides to adjust the kerning because the default spacing between the letters is not appealing: "this spacing is all goofy. So I'm gonna kern it a little bit" (personal communication, April 14, 2012). Here, she draws on a felt, or tacit, sense of what works most effectively in her design. In most design and publishing software programs, each

-

⁸ See Figure 4.5 to better understand how Mary's composing process uses dimension 4 of horizontal arrangement.

typeface is set to a default kern distance. For Mary, the default involves an excessively uniform character spacing that decreases readability. While adjusting the spacing between letters, Mary also decides to change the size of some of the letters: "I wanna give less prominence to the "at" cause those, the little words are just kinda.... You can sometimes just make things really super bulky if you make them the same size as everything else" (personal communication, April 14, 2012). Hierarchy between words is an important aspect of the overall arrangement in terms of both communicating the idea and making the design visually appealing. In this specific example, uniformity in size is not the best option for Mary, as uniformity can lead to overemphasis on less important elements. This overemphasis can detract from the more important elements in the design (e.g. the larger, potentially more meaningful words). In addition, by changing the size of some words, Mary can arrange the words in a more visually appealing manner (shown in the last screen capture in Figure 4.5).



Mary uses her best visual judgment to determine what degree of kerning will be the easiest on the eye: "I'm just kind of visually seeing... You kinda wanna make the space equal when you read it" (personal communication, April 14, 2012). While adjusting the spacing, Mary also takes into account the shape of the letters: "with letters that are on the slant here...you wanna bring them a little bit tighter than you have the other words, because optically when you're looking at it....It looks like it should go there" (personal communication, April 14, 2012). Each set of letters requires its own degree of kerning, and Mary makes those decisions based on her visual expertise: "it's just what looks natural" (personal communication, April 14, 2012).

Kerning also contributes to the creation of a reading path within the design. Mary explains that the spacing between characters contributes to the readability of a document:

As far as like, readability and legibility goes, like what's going to...Guide the person's eye...Cause sometimes when things are spaced out it kinda messes with, there's like some psychology behind it...Like how people read things...What's gonna be the easiest on the eye. (personal communication, April 14, 2012)

Kerning and readability is demonstrated in the first and sixth screen capture in Figure 4.5. The first screen capture shows the automatic kerning used with the specific font Mary chose for the title *Breakfast at Tiffany's*. The sixth screen capture shows the final kerning of the title. The letters are closer together and also have been adjusted in size to contribute to readability (refer to the discussion of hierarchy in word size above).

This example of kerning shows how even the smallest adjustments within a design can contribute to its overall readability and effectiveness. While only Mary

articulates the importance of kerning during her design process, character spacing is clearly an important kind of horizontal arrangement as it directly influences the readability of a design. These spatial adjustments are one dimension of horizontal arrangement that may remain quite transparent to the reader (in the final product), but become prominent during the design process.

Dimension 5: Horizontal Arrangement to Create New Graphic Elements

In this dimension, horizontal arrangement is used to create new shapes and negative space through the arrangement of new or existing graphic elements such as lines. In the first example below, Eric refers to "negative space" during his process. In graphic design, negative space is synonymous with white space, or the "empty" space between elements in a design (Williams, 2008). In Eric's illustration⁹, the deliberate creation of designed negative space (through horizontal arrangement) achieves a repetitive pattern to add stylistic emphasis to the background:

Just gonna repeat that pattern. Now basically what this is gonna do is basically look like a hexagon or whatever it is, with...Kinda a little gap between it. Which I think...Again it's kind of about the negative space I think, because the negative space is just as interesting...I'm gonna actually create more in these negative spaces here. (personal communication, March 18, 2012)

In terms of rhetorical style, the horizontal arrangement of hexagons uses perfect repetition, or *ploche*, to achieve emphasis and support the overall persuasive quality of

_

⁹ See Figure 4.6 to better understand how Eric's composing process uses dimension 5 of horizontal arrangement.

the argument (Fahnestock, 1999). Repetition is also a key principle in graphic design theory, and is generally used to "unify and to add visual interest....If a piece looks interesting, it is more likely to be read" (Williams, 2008, p. 64). While the background of Eric's illustration is not intended to be the main focus, it does contribute to the persuasive value of the overall design on a macro level by using repetition of micro level elements for added visual interest.

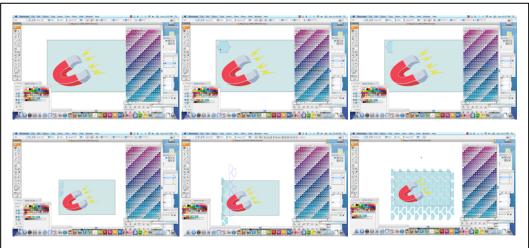


Figure 4.6. Dimension 5 illustrated in six screen captures from Eric's composing process.

Eric refers to the "usual" background for an illustration as something the audience might expect for a design like this (another reference to commonly-accepted cultural knowledge, or *endoxa*) (personal communication, March 18, 2012). He spends a large amount of time working on the arrangement of the background because it plays such a key role in the design as a whole: "it's gonna be a little bit more, up in the front of things" (Eric, personal communication, March 18, 2012). The arrangement of repetitive elements to create interesting negative space within the background has the potential to draw in the

audience because the background style is so unexpected. While Eric draws on many cultural norms (*endoxa*) in this design (the magnet as a symbol of attraction), he also pushes beyond those norms as is seen in his use of an interesting and energetic background design through the use of negative space.

Fred also creates negative space as a way to frame the elements in his modular layout (see Figure 4.3). As discussed above, Fred's layout uses an underlying grid structure to support the creation of a modular design. The modularity requires the rhetorical creation and use of negative space to delineate separation between the modular elements. The underlying grid structure is essentially the use of five columns in which Fred will horizontally arrange the photographs and words for the feature article. As shown in Figure 4.3, there is a repetitive use of negative space in the form of "gutters" between the columns on both pages. The creation and use of these negative space elements through the grid structure supports the modular quality of this layout.

Additionally, Fred creates two versions of the right page with different kinds of negative space in the fifth column (as seen in Figure 4.3).

This dimension is illustrative of how horizontal arrangement is a creative rhetorical tool. The creation of an illustration (like Eric's magnet) is essentially the arrangement of various graphic elements within a composing space. He chooses the elements (here, straight and curved lines) and arranges them to *create* a magnet illustration that is ultimately defined by the surrounding negative space. Fred's approach allows him to create structural negative space through the arrangement of modular elements (which are subsequently arranged within that negative space structure).

Significance of Horizontal Arrangement

These descriptive dimensions of horizontal arrangement illustrate how these four graphic design processes are guided and influenced by principles rationally reconstructed from classical rhetoric. More broadly, the use of arrangement is shown to be more complex and dimensional than the placement and organization of specific elements as defined by classical rhetorical theory. The rhetorical arrangement is also not easily separated as a discrete "step" in a linear composing process that moves neatly from invention to delivery. Instead, arrangement is imbricated with other rhetorical canons, especially that of style, to support the composing activity at hand. The arrangement helps to situate the elements within the design as a whole and, ultimately, within the larger rhetorical situation of audience, purpose, and context.

As a dimensional concept, arrangement can be used to create energy within an otherwise static design, as well as communicate meaning through relationships and interactions between elements. The use of an underlying grid structure supports modular designs composed through horizontal arrangement. The creation of a specific reading path can be supported by hierarchical relationships, symmetry, and pre-existing arrangement. Horizontal arrangement can occur in more transparent ways, such as through the spacing between letters and other characters to both improve readability and communicate connections between those characters. Finally, horizontal arrangement can also be used as an inventive tool to create new elements.

These dimensions suggest that the articulation of arrangement in classical rhetorical theory does not adequately account for today's multimodal composing

situations. The ordering of elements within a strictly oral or print linguistic argument is not the same as that occurring in the activity of arranging (verb) and the material arrangement of elements (noun) within a multimodal text.

While these four designers do not explicitly name classical rhetorical concepts like arrangement as part of the composing processes, it is apparent that they draw on an almost intuitive sense of rhetoric (further research is needed to determine how designers develop their rhetorical knowledge). This may be developed over the years by working among various rhetorical situations and navigating different audiences, purposes, and contexts. The designers may have also learned to think rhetorically, either explicitly through rhetorical instruction during school, or implicitly through thinking about how to communicate effectively.

Inquiry into in situ composing activity helps to uncover the complexities and dimensions of rhetorical arrangement. Because of the lack of empirical research on professional designers' rhetorical composing processes, the dimensional quality of arrangement has remained somewhat invisible. The analysis of textual artifacts *is* important and has contributed much to the theorization and teaching of multimodality and rhetoric. However, rhetorical and multimodal theory and pedagogy are limited to the view of the analytical eye. To broaden my view, I extend this analysis beyond horizontal to vertical arrangement, where the complexities of arrangement become even more clear and nuanced (see Chapter 5). In Chapter 6, I further discuss generative implications of this research.

CHAPTER 5

Vertical Arrangement in Professional Design Processes

An underlying theme of this project is the invisibility of the composing processes behind everyday texts such as those created by the study participants. This invisibility is also at work in the use of technological tools and techniques that are integral to these composing processes. While the dimensional qualities of arrangement are understood as horizontal and vertical, horizontal arrangement may be easier to identify in the final design than vertical arrangement. Vertical arrangement becomes more apparent during the design process, as I will show in the following data examples drawn from this study. Because these are static, print-based designs, they do not include movement and dynamic elements that may be found in time-based, video compositions. Vertical arrangement is best observed through the progression of the composition process across time.

Vertical arrangement refers to the layering of elements within a design, and as will be illustrated below, is best understood through the dynamics of the composing process and not the static, final product (although some degree of layering may be visible in those texts). Vertical arrangement is facilitated, in part, by the composing technologies available to these four designers, mainly the programs within Adobe Creative Suite, including Illustrator, InDesign, and Photoshop (the three programs used by the participants in this study). As the design industry standard, Adobe Creative Suite

provides the participants with a pre-determined set of digital composing tools (specific to this chapter is the layers palette) that have been developed over the years, in part inspired by previous design technologies and creative techniques:

Layers appear today in nearly every graphics application, from Photoshop to Illustrator, Flash, FinalCut, and AfterEffects. The metaphor of layers comes from the physical world. It also reflects historic methods of assembling images for reproduction. Most printing techniques require that an image be separated into layers before it can be reproduced; each color requires its own stone, plate, film, screen, and so on. While contemporary technologies automate this process, making it more or less invisible to the designer, the act of articulating a printed work into layers required conscious planning in the era of pre-digital design and production. Prior to the early 1990s, "mechanicals" were art boards over which layers of acetate were precisely aligned. The designer or production artist adhered every element of the page—type, images, blocks of color—to the appropriate layer on the mechanical, so that any element touching or passing behind any other element was on its own acetate layer. (Lupton, 2007)

The composing technologies used to create these designs are not neutral tools. Instead, these technologies carry traces of historical and cultural ways of making meaning—traces that become part of the compositions created during those processes. Likewise, those composing practices and historical and cultural traces influence the composing technologies as they are adjusted and updated over time. Adobe (creator of Adobe Creative Suite) also references the historical connections behind its layering tool as a way

of manipulating individual elements within a document:

Photoshop layers are like sheets of stacked acetate. You can see through transparent areas of a layer to the layers below. You move a layer to position the content on the layer, like sliding a sheet of acetate in a stack. You can also change the opacity of a layer to make content partially transparent. ("Photoshop: Layer basics," n.d.)

Essentially, the layers tool allows the designer to work on selected aspects of the design without affecting other elements. Each layer becomes its own individual canvas, or composing surface, within the document and can be adjusted individually to create a desired effect within the overall design. Once the design has reached a "final" stage, selected layers can be merged or the entire design can be flattened. By including the layering tool as a key component of the software, Adobe Creative Suite supports the use of vertical arrangement to add textural stylistic qualities that push the boundaries of a two-dimensional design. This tool also helps designers create an illusion of depth within an otherwise two-dimensional print-based design. Research on in situ composing processes reveals the often-invisible relationship between composing practices and composing technologies like Adobe Creative Suite and layers of acetate.

This discussion of composing processes is supported by Haas' (1996) argument regarding the essential connection between writing and technology:

Technology and writing are not distinct phenomena; that is, writing has never

¹ I do not mean to suggest that the layers tool in Creative Suite is unique among composing technologies. As explained above, past technologies such as sheets of acetate fulfill a similar function. My point here is to describe Creative Suite as the tool of choice for these four designers (either by personal choice or simply the industry standard). I mean to explain some of the ways vertical arrangement is achieved in this composing environment.

been and cannot be separate from technology. Whether it is the stylus of the ancients, the pen and ink of the medieval scribe, a toddler's fat crayons, or a new Powerbook, technology makes writing possible. To go further, writing *is* technology, for without the crayon or the stylus or the Powerbook, writing simply is not writing. Technology has always been implicated in writing: In a very real way, verbal behavior without technological tools is not, and cannot be, writing. (pp. x-xi)

As discussed in Chapter 1, I consider multimodal composing to be a kind of writing. Therefore, uncovering the use of technology during multimodal composing processes can be very useful in understanding how designers employ rhetorical qualities. It might be appropriate to characterize writing (composing) as imbricated with technology—a nod to James Berlin's (1992) argument regarding the intertwined relationship between ideology and rhetoric, where "the two [are] inseparably overlapped however distinguished for purposes of discussion" (p. 23). The idea of imbrication can be applied to writing (composing) and technology, where it becomes quite difficult to identify and understand one without the other. Likewise, imbrication suggests the inherent rhetorical layering of vertical arrangement: individual elements are layered and while individually placed, are supportive of the entire composition.

Understanding Vertical Arrangement

Arrangement, along with invention, style, memory, and delivery are foundational concepts in classical rhetoric. What I am calling horizontal and vertical arrangement offer a more precise way to understand and describe how arrangement is used in these four

graphic design processes. By pushing beyond a surface-level understanding of arrangement as the mere ordering of elements within an argument, I show how arrangement, in these instances, is as complex as the composing processes behind it.

As discussed in Chapters 3 and 4, the most common theme in the think-aloud (composing process) data is composition. I reframe this code as "arrangement" to connect better to my rhetorical perspective, and then fracture arrangement further into horizontal and vertical arrangement. As with horizontal arrangement, I identify major instances in each participant's design process where vertical arrangement occurred (see discussion below regarding the lack of vertical arrangement in Fred's process). These instances are described here as dimensions for understanding vertical arrangement in ways unique to these design processes. Examples of verbalization units coded as vertical arrangement can be seen in Tables 5.1, 5.2, and 5.3. As noted in Chapter 3, some verbalization units are double-coded for both horizontal and vertical arrangement. Examples of double-coded verbalizations are explained in Tables 5.1, 5.2, and 5.3.

Table 5.1

Example Coding for Vertical Arrangement in Anne's Process

Verbalization Unit	Explanation
Although I'm gonna have to have something overlapping her because if I would cut her out, there's gonna be half of her leg and part of the kayak missing.	Anne decides to vertically arrange (via edge overlap) multiple photos to cover up missing elements within the kayak photo. This allows her to use the kayak photo effectively as part of the corresponding horizontal arrangement across the postcard. Cutting out part of a photograph is considered horizontal arrangement as it alters the existing arrangement of elements within a photo.
So maybe I'll end up actually layering a photo over top of her.	Refers specifically to layering via overlap—a type of vertical arrangement.
That's something that I do if I want to hide a photo that's being cropped in a certain way.	Refers to layering ("that"), a type of vertical arrangement, as a way to facilitate effective horizontal arrangement of a photo that has been cropped (cropping refers to horizontal arrangement, as it is the altering of existing horizontal arrangement within a photograph).

Table 5.2

Example Coding for Vertical Arrangement in Eric's Process

Verbalization Unit	Explanation
So, okay, I'm gonna create two more layers at this point, um,	Eric anticipates that his design will require the use of multiple layers, so he creates two additional layers during the beginning stages of the project.
And these are gonna be for the background.	He decides that the two additional layers will be used to create the background of his design.
Um, and then I'm gonna use this other layer to kind of create a pattern.	Eric uses one of his additional layers to begin creating the background pattern. This verbalization unit is coded for vertical and horizontal arrangement because it refers to layering (vertical) and creating a pattern (horizontal).
Uh, we're gonna make the background transparent,	He decides to make the very bottom layer transparent.
And then the other thing I like to do is really more or less experiment with how these effects look.	Considers layering various stylistic effects over the background.

Table 5.3

Example Coding for Vertical Arrangement in Mary's Process

Verbalization Unit	Explanation
I feel like it needs some sort of, like, shadow or something to give it some grounding,	Struggling with making the box dimensional through the vertical layering of elements to create a shadow. Also coded as horizontal because the segment refers to "grounding" the box within the horizontal space of the book cover.
But, we're gonna play around with halftones and stuff, which will create that,	Decides that vertically layering halftones will create the shadow effect.
So I'm gonna place this in here.	Decides to place (vertically arrange) the halftone pattern on top of a segment of the box.
This top layer.	Refers to the topmost layer that contains the halftone pattern.
Um, okay, so I'm going to copy that, and, uh, apply that to all these pieces.	Decides to place (vertically arrange) the halftone pattern directly on top of the other parts of the box (e.g. other "flaps").

In the data collected for this study, the use of vertical arrangement can be described in multiple dimensions within two main areas (see Figure 5.1 for a graphic representation):

• Dimension 1: Layering of multiple elements to facilitate horizontal arrangement. Here, vertical arrangement is used to support the effectiveness of the corresponding horizontal arrangement. For example, this can be seen in the creation of a collage, where various elements are vertically arranged through overlapping their edges so that the collage looks cohesive and visually appealing. In this way, vertical arrangement is clearly imbricated with horizontal arrangement.

• **Dimension 2:** Layering of multiple elements to create a desired effect.

This kind of vertical arrangement is a particularly creative tool in that it is used as a rhetorical means to create an entirely new effect, such as a pattern, texture, or the illusion of depth, using multiple layered elements.

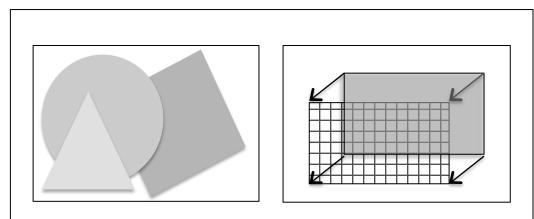


Figure 5.1. Representation of vertical arrangement. Dimension 1 is illustrated at the left. Dimension 2 is illustrated at the right.

In addition to these descriptive dimensions, vertical arrangement, like its horizontal companion, can be understood through data derived from observing the act of arranging (as a verb) and the arrangement itself (as a noun). Because of the important role of layering as an arrangement technique and a composing tool, the *act* of arranging over a period of time reveals more about vertical arrangement than does the final artifact (where layers have already become invisible to the audience). The invisibility of vertical arrangement in the textual artifact is illustrated by the act of "flattening" the layers in Adobe Creative Suite: "Flattening reduces file size by merging all visible layers into the background and discarding hidden layers....When you save a flattened image, you cannot

revert back to the unflattened state; the layers are permanently merged" (Adobe, "Photoshop help," n.d.). Once the design is finished, the designer must flatten the layers permanently—an action that symbolizes, for this project, the often-invisible quality of vertical arrangement. A less drastic action involves "merging" selected layers (rather than flattening all layers at once):

So that's pretty cool....The other thing I will do, a lot of times...at this point....You could actually maybe merge those layers. I'm confident enough in the way that looks that I will actually just select those two, the 8 and the 5 using the shift key, and I will merge layers. Ooh, no I won't. I forgot that there are little...pockets in here from when I did the effect that are not selected so it's not a perfect thing. So actually I should just leave those there separated, and....Cause I mean, the fewer layers it is the smaller the file size, the easier it is to work on it. (Eric, personal communication, March 18, 2012)

Here, Eric explains his reasons for merging specific layers at this point in the process.

After merging, he realizes that one of the layers has a few errors and so he is able to go backwards in the process, unmerge the layers, and fix the errors. Had he flattened all the layers and saved the project, Eric would have been unable to undo the layer merge.

As is the case in Chapter 4, the verbal examples of vertical arrangement are derived from the audio data of the think-aloud protocols. Likewise, the supporting visual examples are screen captures taken from the think-aloud protocol video screen recordings. The dimensions discussed here are *not exhaustive*; rather, they are *major descriptive moments* of vertical arrangement as it occurs in the designers' composing processes. The

designers, composing processes, and tasks are unique, but are also connected by their use of horizontal and vertical arrangement. By describing rhetorical arrangement in these multi-dimensional ways, this study offers insight into the use of rhetoric in contemporary graphic design processes that has not yet been offered in rhetoric and writing studies.

Dimension 1: Effective Horizontal Arrangement through Vertical Arrangement

In this first dimension, vertical arrangement can be seen in the overlapping of multiple elements within the design to support the effectiveness of the overall horizontal arrangement. This kind of vertical arrangement is not the direct stacking of elements (in which one element completely covers another as seen in dimension 2), but is instead typified by the overlapping of edges for a softer horizontal arrangement (as opposed to horizontally arranging the same elements side-by-side with distinct separation and no overlap between elements). While classical rhetorical theory characterizes arrangement as the ordering and organization of elements within spoken or print linguistic discourse, vertical arrangement, as a rational reconstruction, is better understood through the layering and overlapping of specific elements during the composing process to support the effectiveness of the entire final product (Schiappa, 1990).

The initial request for Anne's² project, a marketing postcard, describes the client's desired document as a photograph collage:

This is a postcard where, it's kind of different than my normal style because they want me to show a variety of different scenes from camp. They describe it as a

_

² See Figure 5.2 to better understand how Anne's composing process uses dimension 1 of vertical arrangement.

photo collage, which to me kind of makes me want to cringe because it sounds like too many things jammed into one space....Which go[es] against my clean design. (personal communication, March 16, 2012)

Layering and overlapping different photographs and other graphic elements allows Anne to create more effective horizontal arrangement within her marketing postcard. Rather than aligning each element in straight, linear lines within the postcard, she is able to layer and overlap elements to create more visual interest through asymmetry and unusual shapes. The photo collage is a well-known graphic design technique:

The idea that you can use scissors and glue instead of paint and brushes appealed to Dada artists, who relished the notion of destruction as a radical form of creation. Raoul Hausmann, considered the inventor of photocollages, believed that you can pick and choose images and words from the supply of existing material and recycle them to express an original thought. (Heller, p. 90, 2012)

While Anne's marketing postcard is not an explicit use of Dadaist creation-as-destruction, the use of a photo collage suggests that she is following certain conventions developed over the history of graphic design. The marketing postcard also includes existing material: photographs from the previous year's summer camp sessions, which may or may not have been taken for the primary purpose of marketing. Anne's photo collage is a prime example of one way vertical arrangement is used to facilitate effective horizontal arrangement.

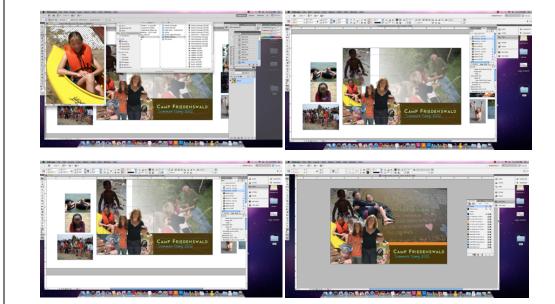


Figure 5.2. Dimension 1 of vertical arrangement illustrated in two screen captures from Anne's composing process.

In order to layer and overlap the photographs, Anne must crop and cut them in a visually appealing manner. Here, cropping refers to the removal of part of the photograph's edges to emphasize a certain part of the original, unedited photograph. Cropping allows Anne to use photographs that have distracting or unnecessary subject matter without resorting to more extreme manipulation techniques (which may involve tools that erase or replace parts of the photograph). Cutting refers to the removal of major aspects of the photograph, such as the background, perhaps leaving only the key subject matter remaining. Cropping and cutting alter the original horizontal arrangement within the photograph by subtraction. Anne may want to cut out a person or group of people in a unique shape rather than using the original rectangular photograph.

Before cropping or cutting the photos, though, she must choose photos based on their content, visual appeal, and suitability for cropping and layering: "I'm also looking for photos where, the subject, there might be one or two....And I can crop around them pretty close, when people are spread out in this picture, in these pictures it's harder to use" (Anne, personal communication, March 16, 2012). In this way, the vertical arrangement process depends, in part, on the horizontal arrangement and style within the existing photographs; the postcard's arrangement relies on the available means of persuasion. The preliminary photo editing process (in which Anne chooses possible photos from all those available) is a prime example of the "judicious selection and use of available means to the desired end" (Corbett & Connors, 1999, p. 293). Anne knows which kinds of photographs will work best for her project and she selects them based on her knowledge of the rhetorical situation.

For example, if a photo has many elements that are spread apart (with empty spaces in between), it is not suited for the layering necessary to create this kind of collage. The postcard is a relatively small document, so the photographic elements that Anne uses must be easily recognizable and not distracting to the overall message. Too many photographs and the reader may be overwhelmed and not know where to look; too few photographs and the message will be overly simplified. A mix of photographic elements also helps to balance the collage: by using a range of shapes and sizes, Anne can create a more effective and visually appealing postcard. Anne realizes that she will have to do more than just crop some of the edges of the photos if she wants to use them effectively within the postcard:

I'm probably gonna to end up doing a few cutouts. So I will isolate a person in the photo and cut them out and maybe layer them on top of another photo, is what I'm

thinking, just so that I can get lots of images on one card without a bunch of...rectangles that are exactly the same size...laid out on the card. (personal communication, March 16, 2012)

By cutting out elements from the photographs, Anne has the ability to arrange them vertically (overlapping and layering) so that the overall horizontal arrangement of the collage works more effectively. Cutting the photographs also allows Anne to create a collage that uses a range of shapes and sizes to increase the interest of the postcard.

In one particular example, Anne chooses a photograph with a prominent bright yellow kayak. While she finds the bright colors and water subject matter appealing for the context of a summer camp, Anne finds the yellow kayak a bit distracting because it reminds her too much of a banana:

I like this photo here, but I keep thinking that I am just, I'm making this comparison in my head with this kayak looking like a giant banana, and it's slightly distracting. While I love the color that's like my gut, my gut reaction. (personal communication, March 16, 2012)

Anne decides that she likes the photograph and is willing to edit and manipulate it so that the photograph works as a coherent part of the postcard collage (another example of how individual design elements are composed with the larger, overall design in mind).

Because of her design experience, she knows certain techniques will allow her to use the photograph while avoiding distracting colors and shapes. These techniques involve cropping and cutting portions of the photograph to shift the focus from the kayak to the kayaker: "So I might try to see if there's a way...I can crop out part of that so that it really

looks more like a kayak and less like a banana" (Anne, personal communication, March 16, 2012). She realizes that cropping and cutting the photograph will not be enough to reduce the distracting shape and color of the kayak, so Anne considers vertical arrangement via overlapping other photographs over parts of the kayak photograph:

Although I'm gonna have to have something overlapping her because if I would cut her out, there's gonna be half of her leg and part of the kayak missing so maybe I'll end up actually layering a photo over top of her. That's something that I do if I want to hide a photo that's being cropped in a certain way. It's kind of a layering treatment. (personal communication, March 16, 2012)

The overlapping technique allows Anne to horizontally arrange the photographs so that the subject matter is not overly distracting. However, cropping, cutting, and overlapping the photographs are still not enough to create an effective design. Anne determines that certain stylistic techniques will increase to the overall effectiveness of the postcard, including blending, blurring, and fading portions of the photographs used.

Certain techniques can be considered strategic use of rhetorical style to facilitate better vertical and horizontal arrangement, and illustrate the interrelationship and imbrication of the rhetorical canons. In this example, Anne considers which stylistic techniques will make the vertical and horizontal arrangement, and ultimately the entire postcard, more effective:

I have to figure out what I want to do with this girl down here because I don't like how the harsh line, I've kind of got things blending and overlapping well, and...we've got a harsh line that surrounds her photo then a, like a strong point

here where the, where it comes to the angle. So I'm wondering, maybe what I will do is go in and try to cut out half of it. The right half. Cause that'll lay nicely over this girl. And then I may cut this out over here, or fade it...maybe actually the kayak will cover some of it, so I think what I might try to do is fade a little bit out, and if that doesn't work, I may cut a harder line in...I think I, I would like to see this board continue, and I cut out part of that just because it looks a little bit unnatural faded out. (personal communication, March 16, 2012)

The harsh lines of the photographs can be faded to facilitate more natural overlap of elements and horizontal arrangement that reads more smoothly. In this way, Anne is subtly combining parts of multiple photographs to create a collage that seems like a single, coherent photograph. By fading harsh edge lines, the collage becomes less a collection of photographs and more of a rhetorically composed piece of communication that reads clearly and eloquently.

This dimension shows a clear connection between horizontal and vertical arrangement. Here, Anne vertically arranges, by layering and overlapping, photographs so that she can create a more effective horizontal arrangement. Like some of the other dimensions, this dimension is best illustrated through one specific designer's process (Anne) because of the nature of the task (collage) and the elements used (photographs). However, while only one of the four design processes involves this dimension to the degree described here, Anne's process provides a very detailed and thoughtful example to illustrate how vertical arrangement works in this way.

Dimension 2: Creating a Stylistic Effect through Vertical Arrangement

In addition to supporting effective horizontal arrangement, vertical arrangement is used to create different stylistic effects within a design. This dimension further illustrates the intertwined and imbricated nature of the rhetorical canons, specifically arrangement and style. Classical rhetorical theory characterizes style as an expressive bridge between form and content:

This notion of the integral relationship between matter and form is the basis for any true understanding of the rhetorical function of style. It precludes the view that style is merely the ornament of thought or that style is merely the vehicle for the expression of thought. Style does provide a vehicle for thought, and style can be ornamental; but style is something more than that. It is another of the "available means of persuasion," another of the means of arousing the appropriate emotional response in the audience and of the means of establishing the proper ethical image. (Corbett & Connors, 1999, p. 338)

In these design processes, style facilitates expression of meaning but also works closely to support arrangement. The examples that follow show how it is difficult to separate a discussion of arrangement and style when understanding contemporary multimodal composing processes.

While these designs are for static, two-dimensional printed documents, strategic vertical arrangement supports the illusion of depth within two-dimensional illustrations.

The illusion of depth is a foundational move in graphic design practice: "One of graphic designers' most enduring obsessions is to try to escape from flat land. They would like to

free images and text from the confines of the two-dimensional plane" (Heller, p. 112, 2012). Vertically arranging elements in layers allows the study participants to push the boundaries of two-dimensional space. As Tufte (1990) argues, "Escaping this flatland is the essential task of envisioning information—for all the interesting worlds (physical, biological, imaginary, human) that we seek to understand are inevitably and happily multivariate in nature. Not flatlands" (p. 12). While Tufte's (1990) focus is on data displays which are a bit different than the design tasks studied for this dissertation, his point is clear: pushing the dimensional limits of static, "flat" composition surfaces such as postcards and magazine spreads can result in a more visually-appealing and informative rhetorical moment. The use of vertical arrangement and layering support the move from flatlands to documents with depth.

Mary's book cover³ uses an illustration of a key placed at the bottom of a cardboard box. The box is constructed of different shapes arranged vertically to create the illusion of depth. Specifically, the use of halftones supports the illusion of depth and allows Mary to experiment with a technique she hasn't been able to use in her previous work:

I feel like it needs some sort of, like, shadow or something to give it some grounding, and I think maybe that's the issue that I'm having with it. But, we're gonna play around with halftones and stuff, which will create that. (personal communication, April 14, 2012)

There are many options for creating a shadow, however, halftones provide a more stylized, less subtle look than traditional shadow effects. Other methods of creating a

³ See Figure 5.3 to better understand how Mary's composing process involves dimension 2 of vertical arrangement.

shadow include the use of shadow filters and gradients in Adobe Creative Suite. Mary uses halftones as a rhetorical decision rather than simply as their historical role in print production processes and image reproduction: "The halftone techniques first developed in the 1880s transformed the continuous tones of an original into tiny dots....Halftone techniques could duplicate photographs, paintings, and wash images" (Beegan, 2007, p. 46). Instead of using halftones as the production output method, Mary vertically arranges a layer of halftone pattern directly over different parts of her design to create the illusion of depth and improve visual appeal.

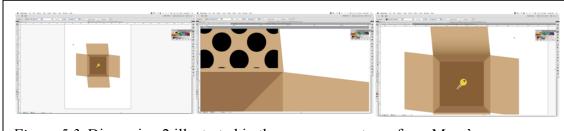


Figure 5.3. Dimension 2 illustrated in three screen captures from Mary's composing process.

By vertically layering different elements, Mary is able to create a stylized effect that supports the overall concept behind her design. The use of halftones shows how rhetorical style is used in tandem with rhetorical arrangement. By vertically arranging the halftones on top of the cardboard box elements, Mary is able to facilitate rhetorical style through rhetorical arrangement. This is a clear example of the ways in which the rhetorical canons (specifically, arrangement and style) are imbricated and not easily understood as separate steps in a linear composing process.

Eric's⁴ magnet illustration involves what he calls a "grunged up look" (personal communication, March 18, 2012). His illustrations consistently draw on his personal style and are geared towards the publication's audience of designers. Because he is trying to appeal to an audience of designers, Eric knows he can take more risks with his illustrations. The eight screen captures in Figure 5.4 show Eric's process of vertically arranging elements to create a desired stylistic effect for the magnet illustration. Eric begins by creating a background layer so that he can build the stylistic effect on a primary foundation.

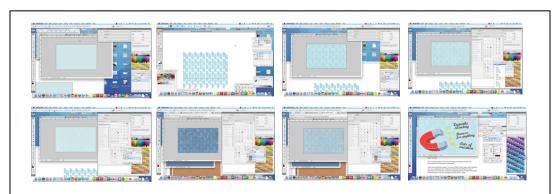


Figure 5.4. Dimension 2 of vertical arrangement illustrated in eight screen captures from Eric's composing process.

Once Eric has at least two layers, he can start to experiment with possible stylistic effects:

I'm gonna paste this on top so that I've got two layers....Now this is where I was saying that this is where I could start having a little bit of fun with this stuff. And I'm gonna scale it up a little bit and maybe gonna make it a little off....Scale it up

-

⁴ See Figure 5.4 to better understand how Eric's composing process involves dimension 2 of vertical arrangement.

a little more, and I'm gonna kind of put it off....the pattern so that it's not like a perfect....It' not starting with a perfect corner or whatever. So it's a little off-center. (personal communication, March 18, 2012)

Here, Eric places one layer on top of another. He decides to increase ("scale up") the size of the hexagon pattern that will be the focus of the background (Eric, personal communication, March 18, 2012). The size increase is a type of rhetorical style used to add emphasis to the design through strategic hierarchy. In this way, the hexagon pattern becomes more dominant than some elements, while remaining subordinate to the magnet illustration. After changing the size, he decides to adjust the horizontal arrangement of the hexagon pattern so that it is not perfectly centered, thus adding to the overall visual appeal of the design. This use of asymmetry is supported by Schriver's (1997) contention that "asymmetry can have a very welcome enlivening effect" (p. 326). The rhetorical use of asymmetrical horizontal arrangement supports a dynamic quality within an otherwise static, two-dimensional print document.

Once Eric determines the ideal size and horizontal arrangement of the pattern, he shifts his focus to choosing a specific stylistic effect from among the options available in Photoshop:

So we've got some weird kind of different effects here that you can use to kind of grunge up things a little bit....So I'm gonna just gonna kind of go in and kind of loosen it up a little bit so that it's not as, like I said it's a little faded, a little more grunged up....And then I'm gonna work with the opacity a little bit....Gonna make it so that it's not like white....So it's not, so it's more of a background kind

of thing. (personal communication, March 18, 2012)

Eric's knowledge of Photoshop allows him to experiment with certain tools that he knows may be useful in creating the effect he wants. By adjusting a specific layer's opacity and using brush tools, he can create a stylistic effect that changes the look of any underlying layers. He draws on his experience with the software to determine which tools may be effective and to avoid those he knows will not work for this illustration:

The other thing I like to do is really more or less experiment with how these effects look....Some of them are pretty self explanatory of what they do....Some of them, like overlay is literally just overlaying the thing. This one is one I tend to use the most...just because it kind of creates this cool kind of textured look....But like soft light also manages that kind of creates the same effect, only it's lighter, and again, I kind want the magnet to be the focus here, so I'm gonna keep that as my...effect. (Eric, personal communication, March 18, 2012)

Here, Eric uses his rhetorical knowledge to determine how the overlay and soft light tools will produce a visually appealing background without overwhelming the primary aspects of the design. Eric vertically arranges these effects over a series of layers to achieve the look he has in mind.

After the first round of effects, Eric decides to search for metal textures on a free-use texture and brush website: "what I'm looking for here is something with kinda some motion to it, something that maybe isn't just a flat surface....Again to kind of create some, some interest....This'll suit my needs fine. Actually, let's use something a little more textury" (personal communication, March 18, 2012). At this stage, Eric is searching for

additional elements to vertically arrange through layering within the illustration to complete the desired stylistic effect, which is another example of the "judicious selection and use of available means to the desired end" (Corbett & Connors, 1999, p. 293). He downloads a collection of metal textures and experiments with various options until he finds one that works most effectively within the illustration:

You can see that this is just a very small fraction of a huge...document. So I'm gonna try to bring that down. In doing that, I can kind of add some of these little textury, interesting things here. And...something that you can do with this one that I was not able to do with the tiled...image is that I can move this around too and see if maybe if one part of it doesn't work out very well, at least maybe something else can work out. And actually this is actually looking pretty good. This is kind of the effect that I want. (Eric, personal communication, March 18, 2012)

The metal textures are downloaded as very large files, affording Eric the freedom to adjust the size and arrangement (both horizontal and vertical) according to the needs of his illustration. He decides to decrease the size of the file so that a larger selection of the metal texture will be available for his needs. Here, the use of layers supports this necessary size adjustment by allowing Eric to decrease the overall size of the background texture without adjusting or changing other corresponding layers. He can also adjust a specific layer and compare how it looks at different stages with the rest of the design. In this case, vertical arrangement supports the invention process: the ability to adjust specific layers supports Eric's decision-making by allowing him to see the available options without making unnecessary changes to the entire design.

Once he is satisfied with the background texture, Eric decides to adjust the lightening bolt layer:

I'm gonna go to my little bolts now and...try to do the same kind of effect that I did on the background of this drawing....I'm gonna use a different thing though. Just to kind of give it kind of that airbrushed painted look. Because, in the end I kind of want this to look like, you know, illustrated. I don't want to delete it completely, but I kind of just want to take some pieces off so that it looks kinda like...it was almost like painted over...the top of it. (personal communication, March 18, 2012)

Here, the use of vertical arrangement through the layer tool allows Eric to manipulate the stylistic qualities of individual elements within the illustration. He wants to have a similar effect across the entire illustration, but needs to go about producing that effect in different ways on different layers individually. By using layers, Eric can adjust and arrange the lightening bolts, magnet, and background texture individually. Once he is satisfied with the illustration, the multiple layers can be merged into one layer. Once they are merged, or flattened, and saved, the layers cannot be manipulated individually.

This dimension is particularly illustrative of how vertical arrangement becomes invisible in the final textual artifact. Observation of the design processes provides access to this kind of vertical arrangement, as design has not yet been flattened, but is actively being created through vertical arrangement. In this way, vertical arrangement of elements is used to create illusions of depth (as seen in Mary's use of halftones) and to create stylistic effects (as seen in Eric's creation of a background texture and pattern.

Significance of Vertical Arrangement

These two dimensions of vertical arrangement further illustrate the important role of rhetoric, specifically arrangement, in these graphic design processes. Vertical arrangement can be used to support effective horizontal arrangement through layering and overlapping of different elements within the design. In addition, vertical arrangement facilitates the creation of various stylistic effects such as textures. These dimensions illustrate that arrangement is used differently in in these processes than is suggested by classical rhetorical theory.

Unlike horizontal arrangement, vertical arrangement is often invisible in the final textual product. However, vertical arrangement becomes more apparent when the composing process is observed. During the composing process, vertical arrangement is facilitated by the use of layers, either overlapping edges or the complete layering of elements. While some degree of overlap may be apparent in the final textual product, much of the layering becomes invisible once the design is flattened. The act of flattening becomes a metaphor for the invisibility of vertical arrangement, and ultimately, the invisibility of arrangement as dimensional in the textual artifacts that surround us every day.

One of the four composing processes is notably absent in this chapter: Fred and his two-page magazine layout. As discussed in Chapter 4, Fred's layout relies on an underlying grid structure for consistency in the publication and for modularity. Much of traditional page layout (as seen in magazines and newspapers) relies on grid systems to provide consistency across the publication:

Typographic grids are all about control. They establish a system for arranging content within the space of page, screen, or built environment. Designed in response to the internal pressures of content (text, image, data) and the outer edge or frame (page, screen, window), an effective grid is not a rigid formula but a flexible and resilient structure, a skeleton that moves in concert with the muscular mass of information. (Lupton, 2004, p. 113)

While Lupton (2004) later explains that grid systems can be "broken" for more flexibility and creativity, her point remains: grids are, essentially, about structural control. While a grid is not necessarily a template (in that it does not prescribe where elements should go), the grid does provide an underlying structure to the horizontal arrangement of page design. Fred is the only designer in this study to use a grid and create a more traditional page layout for his think-aloud protocol task. The other three designers create less traditional designs and do not use underlying grid structures. A grid system seems to support horizontal arrangement more so than vertical because of the reliance on separate columns and modular elements that do not overlap. Further research on page layout as a kind of multimodal composing may shed light on these issues, but unfortunately is not within the scope of this project (but will be part of my future research).

There is a close relationship between these design processes and composing technologies. This relationship deserves to be investigated further if the field of rhetoric and writing studies is to better understand the use of rhetoric in contemporary graphic design processes. The ways in which composing technologies shape and are shaped by composing practices offer a rich ideas for future research and pedagogical application.

CHAPTER 6

Conclusions and Implications: Generating Future Inquiry and Practice

The purpose of this dissertation has been to describe some of the ways rhetoric is used in four professional graphic design processes, specifically in terms of rhetorical arrangement. To address that purpose, I have created linguistic snapshots (Chapter 2) to provide a basic context for the analysis, and then offered descriptions of horizontal and vertical arrangement in multiple, unique dimensions (Chapters 4 and 5). Ultimately, I describe how rhetorical arrangement in these four professional graphic design processes is layered and dimensional—a rational reconstruction of the classical understanding of arrangement as the organization of the parts of verbal discourse (Schiappa, 1990). Additionally, I have described how arrangement works in tandem with other canons such as style and invention. This reconstruction of arrangement offers the field of rhetoric and writing studies some unique ways to consider the available and invisible means of persuasion.

In this chapter I discuss some of the implications from this project for theory, research, and teaching (three areas which are not mutually exclusive, but provide different starting points for considering these implications). I do not intend to argue for generalizable conclusions, but instead offer generative questions and ideas to prompt future inquiry and practice.

Implications for Understanding Professional Design Processes as Rhetorical

This dissertation suggests and describes some of the ways in which graphic designers use rhetoric during their processes. Instead of using rhetorical tools as strict templates or rules for arrangement, the participants think rhetorically by identifying the available means of persuasion (often noting what might be invisible to them as constraints to either work around or reframe as affordances), and then determining how best to use those means in a rhetorically sound manner. Often the four designers' decisions are connected to conventions within a specific rhetorical situation. The *arrangement* of the available means occurs in horizontal and vertical ways to support effective communication.

In Chapter 1, I discussed some of the issues surrounding the use of certain terminology to describe texts and composing activity in the contemporary world. There is a good argument for definitional precision when describing the kind of composing activity studied in this dissertation. Is it visual? Is it written? Is it multimodal? Something else? The "correct" answer to each of these questions is context-dependent and rhetorical. Defining terms in a specific context is necessary before employing those terms for use in research and pedagogy (see Lauer 2009, 2012). I have chosen to characterize the composing processes and artifacts under study in this project as multimodal: they employ multiple modes of representation, including visual, verbal, and spatial (and quite often, those modes overlap and become difficult to separate). When a multimodal composing process is recorded and a new multimodal text is produced, temporal and aural modes are introduced. How these texts and processes are understood is dependent on the very

framework I've used throughout this project: a rational reconstruction of classical rhetoric in contemporary situations (Schiappa, 1990).

Classical rhetoric can be rationally reconstructed to better understand, describe, and engage in contemporary multimodal composing situations (Schiappa, 1990). The descriptions of horizontal and vertical arrangement in this dissertation offer in situ examples of this reconstruction. Beyond simply providing a different way to understand classical rhetoric, horizontal and vertical arrangement suggests the usefulness of thinking about multimodality, specifically graphic design, from a rhetorical perspective. By highlighting the inherently multimodal quality of these graphic design processes and their respective textual artifacts, I hope to suggest new ways to understand and widen the available means of persuasion in any case (often by revealing the otherwise invisible).

One way to understand the power of thinking rhetorically about multimodality is in terms of print linguistic practices and artifacts. Instead of viewing "writing" as limited to print linguistic text on a page (or screen), it may be quite useful to reconsider such texts and practices as multimodal. This perspective opens more "traditional" kinds of composing to rhetoric in new and different ways—in ways that help composers identify that which was previously invisible and begin to access all means possible (Selfe, 2009). Here, print linguistic writing can be understood as involving multiple modes, including linguistic, visual, and spatial means. I do not mean to suggest that monomodal perspectives are "bad" or "good," but that a multimodal perspective may open up a wider range of available means (many of which may have been invisible from a monomodal perspective). By studying multimodal composing processes like graphic design,

researchers can better identify how classical rhetorical concepts like arrangement can help composers identify and use available and invisible means of persuasion.

Generative Questions and Implications for Future Research

As discussed at the end of Chapter 3, I have suggested additional research questions and topics inspired by the work I have done in the current project, including:

- How do professional graphic designers revise their work? What rhetorical qualities are important to these revision processes? The scope of this project did not allow for the study of the revision process due to the amount of time required and the manageability of the data collected. However, an expanded project might be able to offer a glimpse of the use of rhetoric in composing tasks that occur over an extended period of time and in multiple composing sessions.
- How is rhetoric used during *collaborative* graphic design processes? The current study focuses on four individual designers, which offers a limited view of the ways in which the social contexts and interactions inherent to meaning making activity occur. While the designers refer to other people (e.g. clients, audiences), they do not interact with others during their composing processes. Future research might focus on collaborative composing activities within workplace settings such as a marketing or design firm. This research would include additional actors such as clients and users and may focus, in part, on the brainstorming occurring at client/designer meetings.

- How is expertise used for rhetorical decision-making during professional graphic design processes? The four participants in the current study are experts in their craft. While this dissertation does not focus on expertise as a theme, there are hints of how expertise may connect to tacit and intuitive decision making during the composing processes. As discussed above, the participants move rather quickly at times when composing, leading me develop questions related to the role of expertise in this quick decision making. Future research may involve additional analysis of the current data set, for example, to look specifically at this phenomenon.
- How do students learn to be professional graphic designers? What does graphic design education teach students about thinking and acting rhetorically (implicitly or explicitly)? Is there a kind of "design thinking" that students learn in these classes? These questions connect to the previous question about expertise in the design process. I have collected observational classroom data during a semester-long graphic design class to see how students talk about their work. Much of my observations took place during critique sessions (similar to peer review in writing studies). It was not within the scope of this dissertation to include this classroom data, however, I plan to continue the classroom project in my future research trajectory.
- Do modes have specific affordances and constraints? What might
 additional inquiry into graphic design practice reveal about affordances

and constraints as rhetorical qualities of process? These questions may relate to other aspects including affordances and constraints of technologies, audiences, and media.

What role does semiotics play in these composing processes? In this
project, I chose to look at the use of rhetoric in four design processes.
 Future research might include a study of the relationships between
semiotic and rhetorical qualities of design processes.

In addition to the future project ideas listed above, I would like to continue working on the development and use of multimodal research methods for studying multimodal composing processes like graphic design. By using this specific set of methods and methodological approach for this project, I have attempted to capture a trace of the rich and layered qualities of four graphic design processes. The audio and video recordings, or process traces, combine to create a multimodal text of the composing processes studied. The data are not intended to be equal to the composing processes, but instead, to create a multimodal *representation* of the composing events recorded.

While visual research methods and multimodal analysis methods have been developed and used for some time now (e.g. for visual anthropology, see Pink, 2003; for multimodal discourse analysis, see Royce & Bowcher, 2007), they focus either on one specific mode (e.g. the visual) or multimodal textual artifacts. The data in my study become a multimodal text of sorts, but not a text that was composed as a specific document or multimodal project (like that of the texts produced by the four participants). Rather, the data become a multimodal *representation* of the composing processes and are

artifacts (such as a marketing postcard or illustration) are not. For example, when Anne's postcard is distributed to the intended reader, a multimodal recording of her composing process is not part of that postcard. The audience does not expect to receive a trace of the process (although some process traces may remain in the postcard).

As mentioned in Chapter 2, I struggled with representing research on multimodal composing processes in a print linguistic dissertation. There is a good argument for supporting scholarship that takes advantage of all available means of persuasion, especially when attempting to represent explicitly multimodal activity (see Ball, 2004 for an in-depth argument regarding the delivery of scholarship through what she calls "new media" texts). As suggested throughout this dissertation, the composing moments and rhetorical decisions made during these composing processes are ephemeral, leaving only traces of the dimensional quality of rhetorical arrangement in the final textual artifact. The difficulty of discussing those ephemeral dimensions in a print linguistic text merits the further consideration of presenting such research in the kinds of new media, multimodal texts discussed by Ball (2004). At this time, I have not created an explicitly new media text in Wysocki's (2004a) sense (new media texts are those where materiality is made explicit). However, I use this space to *suggest* that creating a multimodal text to represent this study may be particularly effective in communicating and describing examples and qualities of horizontal and vertical arrangement, especially those with particularly temporal qualities.

Additional research may further hone and develop multimodal methods that reflect the complexity of the graphic design practices under study. The development of multimodal research methods for understanding composing processes such as graphic design was not the overarching purpose of this study, but emerged as a potential interest and specific focus during the end of the project, ultimately inspiring ideas and motivations for the development of future inquiry.

Implications for the Composition Classroom

The mantra, "writing is changing," is no surprise to composition teachers (Wysocki, 2004a, p. 2). This change can be seen in the increasing tendency to value multimodal composing practices in the field of rhetoric and writing studies, but also in a broader understanding of writing (discussed in Chapter 1). As models of contemporary rhetoric in action, graphic design activities and artifacts may be quite relevant for composition instructors who want to include more multimodal composing or to simply expand the means available to their students. Wysocki (2004a) elaborates:

If we shift from seeing the apparently growing emphasis on the visual in our culture and time not as the automatic result of new technological ease but rather as a historically situated process, then we can situate that emphasis within ongoing vacillations in our understandings of how words and visual representations function and relate. (p. 16)

While Wysocki focuses on "words and visual representations" in her argument, the point she makes is inherently about the rhetorical nature of multimodality (p. 16). This broader

understanding of writing and multimodality is also reflected in Arola's (2010) argument regarding the necessary role of design in the composition classroom:

The belief that design is simply a "vessel" or a "container," and that content is the *real* meat of the Web, threatens to make the effects of design invisible. Those of us committed to engaging with modes of meaning beyond the alphabetic need to work to bring design to a discursive level so that we, along with our students, become attuned to the ways in which design encourages users to participate in online spaces. If we are to enact a meaningful multimodal pedagogy, then we need to make design visible. (p. 13).

While Arola's argument is situated in Web-based design spaces and activities, her goal is clear: (all) design is an inherent, and often neglected, aspect of meaning making activity that is relevant to composition pedagogy. Neglecting design can render it invisible in ways that are detrimental to learning and engaging in meaningful, rhetorical activity in the contemporary world. Studying the use of rhetoric in these four graphic design processes has allowed me to better identify rhetorical means of which I was previously unaware. The generative research questions and ideas discussed in this chapter are intended to support the continuation of inquiry dedicated to identifying all available means of persuasion, even those that may be invisible for the moment.

References

- Adobe. (n.d.). *Photoshop: Layer basics*. Retrieved from http://help.adobe.com/en_US/photoshop/cs/using/WSfd1234e1c4b69f30ea53e410 01031ab64-78e3a.html
- Adobe. (n.d.). *Photoshop help: Managing layers*. Retrieved from http://helpx.adobe.com/photoshop/using/layers.html
- Amare, N., & Manning, A. (2007). The language of visuals: Text + graphics = visual rhetoric tutorial. *IEEE Transactions on Professional Communication*, 50(1), 57-70.
- Aristotle. (2007). *On rhetoric: A theory of civic discourse*. (2nd ed.). (G. A. Kennedy, Trans.). New York: Oxford University Press.
- Armstrong, D., Gosling, A., Weinman, J., & Marteau, T. (1997). The place of inter-rater reliability in qualitative research: An empirical study. *Sociology*, *31*(3), 597-606.
- Arnheim, R. (1969). Visual thinking. Berkeley, CA: University of California Press.
- Arola, K. L. (2010). The design of web 2.0: The rise of the template, the fall of design.

 Computers and Composition, 27, 4-14.
- Ball, C. E. (2004). Show, not tell: The value of new media scholarship. *Computers and Composition*, 21, 403-425.
- Bazerman, C. (1988). Shaping written knowledge: The genre and activity of the experimental article in science. Madison, WI: University of Wisconsin Press.

- Beegan, G. (2007). The studio: Photomechanical reproduction and the changing status of design. *Design Issues*, 23(4), 46-61.
- Berlin, J. A. (1992). Poststructuralism, cultural studies, and the composition classroom: Postmodern theory in practice. *Rhetoric Review*, 11(1), 16-33.
- Bernhardt, S. A. (1986). Seeing the text. *College Composition and Communication,* 37(1), 66-78.
- Bezemer, J., & Mavers, D. (2011). Multimodal transcription as academic practice: A social semiotic perspective. *International Journal of Social Research Methodology*, 14(3), 191-206.
- Birdsell, D. S., & Groarke, L. (1996). Toward a theory of visual argument. *Argumentation and Advocacy*, 33(1), 1-10.
- Blair, J. A. (1996). The possibility and actuality of visual arguments. *Argumentation and Advocacy*, 33(1), 23-40.
- Blair, J. A. (2004). The rhetoric of visual arguments. In M. Helmers & C. A. Hill (Eds.), *Defining visual rhetorics* (pp. 41-62). Mahwah, NJ: Lawrence Erlbaum.
- Bolter, J. D., & Grusin, R. (1999). *Remediation: Understanding new media*. Cambridge, MA: The MIT Press.
- Brumberger, E. (2007). Visual communication in the workplace: A survey of practice. *Technical Communication Quarterly*, 16(4), 369-395.
- Cicero, M. T. (1949). *De inventione*. (H. M. Hubbell, Trans.). Cambridge, MA: Harvard University Press.

- Cicero, M. T. (1967). *De oratore*. (E. W. Sutton, Trans.). Cambridge, MA: Harvard University Press.
- Corbett, E. P. J., & Connors, R. J. (1999). *Classical rhetoric for the modern student*. (4th ed.). New York, NY: Oxford University Press.
- Corbin, J., & Strauss, A. (2008). *Basics of qualitative research* (3rd ed.). Los Angeles, CA: Sage Publications.
- DiPardo, A. (1994). Stimulated recall in research on writing: An antidote to "I don't know, it was fine". In P. Smagorinsky (Ed.), *Speaking about writing: Reflections on research methodology* (pp. 163-181). Thousand Oaks, CA: Sage.
- Elling, S., Lentz, L., & de Jong, M. (2012). Combining concurrent think-aloud protocols and eye-tracking observations: An analysis of verbalizations and silences. *IEEE Transactions on Professional Communication*, 55(3), 206-220.
- Emerson, R. M., Fretz, R. I., & Shaw, L. L. (1995). Writing ethnographic fieldnotes.

 Chicago, IL: University of Chicago Press.
- Ericsson, K. A., & Simon, H. A. (1993). *Protocol analysis: Verbal reports as data*. (Rev. ed.). Cambridge, MA: MIT Press.
- Ericsson, K. A., & Simon, H. A. (1980). Verbal reports as data. *Psychological Review*, 87(3), 215-251.
- Fahnestock, J. (1999). *Rhetorical figures in science*. New York, NY: Oxford University Press.

- Finnegan, C. A. (2001). The naturalistic enthymeme and visual argument: Photographic representation in the "skull controversy". *Argumentation and Advocacy*, *37*, 133-149.
- Fox, M. C., Ericsson, K. A., & Best, R. (2011). Do procedures for verbal reporting of thinking have to be reactive? A meta-analysis and recommendations for best reporting methods. *Psychological Bulletin*, *137*(2), 316-344.
- George, D. (2002). From analysis to design: Visual communication in the teaching of writing. *College Composition & Communication*, *54*(1), 11-39.
- Graff, R. (2001). Reading and the "written style" in Aristotle's *Rhetoric*. *Rhetoric Society*Ouarterly, 31(4), 19-44.
- Green, J., Franquiz, M., & Dixon, C. (1997). The myth of the objective transcript:

 Transcribing as a situated act. *TESOL Quarterly 31*(1), 172-176.
- Haas, C. (1996). Writing technology: Studies on the materiality of literacy. New York, NY: Routledge.
- Handa, C. (2004). *Visual rhetoric in a digital world: A critical sourcebook*. New York, NY: Bedford/St. Martin's.
- Heller, S., & Vienne, V. (2012). *100 ideas that changed graphic design*. London: Lawrence King Publishing Ltd.
- Kennedy, G. A. (2007). Introduction. In Aristotle, *On rhetoric: A theory of civic discourse* (pp. 1-25). New York, NY: Oxford University Press.
- Kostelnick, C. (1990). The rhetoric of text design in professional communication. *The Technical Writing Teacher*, 17(3), 189-202.

- Kostelnick, C., & Hassett, M. (2003). *Shaping information: The rhetoric of visual conventions*. Carbondale, IL: Southern Illinois University.
- Kress, G. (2005). Gains and losses: New forms of texts, knowledge, and learning. *Computers and Composition*, 22(1), 5-22.
- Kress, G., & van Leeuwen, T. (2001). *Multimodal discourse: The modes and media of contemporary communication*. London: Arnold.
- Lapadat, J., & Lindsay, A. C. (1999). Transcription in research and practice: From standardization of techniques to interpretive positionings. *Qualitative Inquiry* 5(1), 64-86.
- Lauer, C. (2012). What's in a name? The anatomy of defining new/multi/modal/digital/media texts. *Kairos, 17*(1). Retrieved from http://www.technorhetoric.net/17.1/inventio/lauer/index.html
- Lauer, C. (2009). Contending with terms: "Multimodal" and "multimedia" in the academic and public spheres. *Computers and Composition*, 26, 225-239.
- Lupton, E. (2007). Learning to love software. Artifact, 1(3), 149-158.
- Lupton, E. (2004). Thinking with type: A critical guide for designers, writers, editors, & students. New York, NY: Princeton Architectural Press.
- Mau, B. (2004). Massive change. New York, NY: Phaidon Press Inc.
- McDonagh, D., Goggin, N., & Squier, J. (2005). Signs, symbols, and subjectivity: An alternative view of the visual. *Computers and Composition* 22(1), 79-86.
- Nardi, B. A., & O'Day, V. L. (1999). *Information ecologies: Using technology with heart*. Cambridge, MA: The MIT Press.

- New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review 66*(1), 60-92.
- Pink, S. (2003). Interdisciplinary agendas in visual research: Re-situating visual anthropology. *Visual Studies 18*(2), 179-192.
- Prior, P. (2004). Tracing process: How texts come into being. In C. Bazerman & P. Prior (Eds.), What writing does and how it does it: An introduction to analyzing texts and textual practices (pp. 167-200). New York, NY: Routledge.
- Prior, P. (2005). Moving multimodality beyond the binaries: A response to Gunther Kress' "Gains and losses". *Computers and Composition 22*, 23-30.
- Prior, P., Solberg, J., Berry, P., Bellwoar, H., Chewning, B., Lunsford, K. J., . . . Walker, J. (2007). Re-situating and re-mediating the canons: A cultural-historical remapping of rhetorical activity. *Kairos*, *11*(3). Retrieved from http://www.technorhetoric.net/11.3/binder.html?topoi/prior-et-al/index.html
- Quintilian. (1856). Institutes of oratory. (J. S. Watson, Trans.). London: H. G. Bohn.
- Richards, A. R., & David, C. (2005). Decorative color as a rhetorical enhancement on the World Wide Web. *Technical Communication Quarterly*, *14*(1), 31-48.
- Salinas, C. (2002). Technical rhetoricians and the art of configuring images. *Technical Communication Quarterly*, 11(2), 165-183.
- Sandelowski, M. (1995). Sample size in qualitative research. *Research in Nursing and Health*, 18, 179-183.
- Sandelowski, M. (2000). Whatever happened to qualitative description? *Research in Nursing and Health*, 23, 334-340.

- Schiappa, E. (1990). Neo-sophistic rhetorical criticism or the historical reconstruction of sophistic doctrines? *Philosophy & Rhetoric*, *23*(3), 192-217.
- Schriver, K. A. (1997). *Dynamics in document design: Creating texts for readers*. New York, NY: Wiley Computer Publishing.
- Selfe, C. L. (1999). Technology and literacy: A story about the perils of not paying attention. *College Composition and Communication* 50(3), 411-436.
- Selfe, C. L. (2009). The movement of air, the breath of meaning: Aurality and multimodal composing. *College Composition and Communication*, 60(4), 616-663.
- Sheppard, J. (2009). The rhetorical work of multimedia production practices: It's more than just technical skill. *Computers and Composition*, 26(2), 122-131.
- Shipka, J. (2005). A multimodal task-based framework for composing. *College Composition and Communication*, *57*(2), 277-306.
- Smagorinsky, P. (1989). The reliability and validity of protocol analysis. *Written Communication*, 6(4), 463-479.
- Smagorinsky, P. (1995). Potential problems and problematic potentials of using talk about writing as data about writing process. In P. Smagorinsky (Ed.), *Speaking about writing: Reflections on research methodology* (pp. ix-xix). Thousand Oaks, CA: Sage.
- Smagorinsky, P. (1995). Think-aloud protocol analysis: Beyond the black box. In P. Smagorinsky (Ed.), *Speaking about writing: Reflections on research methodology* (pp. 3-19). Thousand Oaks, CA: Sage.

- Spradley, J. P. (1979). *The ethnographic interview*. New York, NY: Harcourt Brace Jovanovich College Publishers.
- Stafford, B. M. (1994). Artful science: Enlightenment, entertainment and the eclipse of visual education. Cambridge, MA: The MIT Press.
- Takayoshi, P., & Sullivan, P. (2007). Introduction: Literacy work in a technology-rich culture: Issues at the intersection of labor, technology, and writing instruction. In P. Takayoshi & P. Sullivan (Eds.), *Labor, writing technologies, and the shaping of composition in the academy* (pp. 1-22). Cresskill, NJ: Hampton Press.
- Toulmin, S. E. (2003). *The uses of argument*. New York, NY: Cambridge University Press.
- Tufte, E. R. (1990). Envisioning information. Cheshire, CT: Graphics Press.
- Whithaus, C. (2012). Claim-evidence structures in environmental science writing:

 Modifying Toulmin's model to account for multimodal arguments. *Technical Communication Quarterly*, 21, 105-128.
- Williams, R. (2008). The non-designer's design book: Design and typographic principles for the visual novice. Berkeley, CA: Peachpit.
- Wilson Logan, S. (2006). Why College English? College English, 69(2), 107-110.
- Witte, S. P. (1992). Context, text, intertext: Toward a constructivist semiotic of writing. Written Communication, 9(2), 237-308.
- Wysocki, A. F. (2004a). Opening new media to writing: Openings and justifications. In A. F. Wysocki, J. Johnson-Eilola, C. L. Selfe, and G. Sirc (Eds.), *Writing new*

- media: Theory and applications for expanding the teaching of composition (pp. 1-42). Logan: Utah State University Press.
- Wysocki, A. F. (2004b). The sticky embrace of beauty: On some formal problems in teaching about the visual aspects of texts. In A. F. Wysocki, J. Johnson-Eilola, C.
 L. Selfe, and G. Sirc (Eds.), Writing new media: Theory and applications for expanding the teaching of composition (pp. 147-198). Logan: Utah State University Press.
- Wysocki, A. F. (2005). awaywithwords: On the possibilities in unavailable designs.

 Computers and Composition 22, 55-62.
- Yancey, K. B. (2004). Made not only in words: Composition in a new key. *College Composition and Communication*, *56*(2), 297-328.