

THROUGH THE ETHERNET: *MAUS*, MULTIMODALITY, AND DIGITAL RADICAL
CHANGE THEORY

By

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ABSTRACT

This dissertation builds upon Dresang's (1999) Radical Change Theory (RCT) and Norris's (2004) Multimodal Interaction Analysis (MIA). It also develops and employs two new analytical tools: Digital Radical Change Theory (DRCT) and Multimodal Literary Analysis (MLA). Through close reading and multimodal analysis, this research investigates how multiple modes of communication by digital tools influence a reader's meaning making. While previous scholars like Dresang (1999), Kress (2003), Jewitt (2008), among others, have examined multimodality in print texts, this study specifically addresses this concept and its use in digital literature. This dissertation examines how multimodal elements within a digital or electronic work of literature impact meaning-making through a case study of Art Spiegelman's *Maus II: A Survivor's Tale - And Here My Troubles Began*, Chapter 2: Auschwitz (Time Flies) as it appears in the DVD *MetaMaus*. This digital version of *Maus* represents an early attempt at incorporating the newly available tools of the mid-1990s. The findings suggest that meaning emerges not only from individual modes, but also through their complex interactions and layering, requiring readers to actively engage in meaning-making across multiple semiotic domains, as theorized by Gee (2004) and the New London Group (2000). By examining what Bucher (2017) identified as the "two basic problems of multimodality" (p. 92)—compositionality and reception—this research contributes new methodological and theoretical frameworks for analyzing electronic texts and demonstrates how digital elements both complicate and clarify textual understanding. The study addresses a significant gap in scholarly approaches to studying digital literature (2006, 2007) while responding to calls from scholars like Moje (2009) for more research on how new media forms impact literacy practices.

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CHAPTER 1: INTRODUCTION

Introduction

As Will Eisner¹ (2008b) wrote, “The telling of the story lies deep in the social behavior of human groups – ancient and modern. Stories are used to teach behavior within the community, to discuss morals and values, or to satisfy curiosity. They dramatize social relations and the problems of living, convey ideas, or act out fantasies” (p. 1). Eisner’s quote demonstrates both the importance that story and storytelling play in all our lives, but also the role each has played in the history of civilization itself. It is the tool with which we not only communicate with each other, but also how we preserve “knowledge by passing it from generation to generation” (2008b, p. 1). While this basic fact has not changed, what has changed is how we tell and share these stories. Within my lifetime, the act of creating and sharing stories has undergone a dramatic revolution resulting in the greatest change to both communication and storytelling since the invention of the Gutenberg printing press in 1436.

During the 1970s, I recall my mother reading to me the Little Golden Books version of *Jack and the Beanstalk* so many times that I could recite it from memory. While this memory is not so different from many children who have lived within the last 100 or more years, what is different is how technology began to alter my experiences with story and storytelling in ways that would extend their possibilities beyond the written page. For example, one Christmas my parents gave my brother and me a record player and several LPs of recorded books. These allowed us to both hear and read along and with the action of the story as it unfolded (complete with music and sound effects). I sat for hours listening to the adventures of Spiderman and tales

¹ Eisner was one of the first artists to work in the comic book industry in the U.S. and is credited with creating the term “Graphic Novel” and “Sequential Art.” His contributions to both the comics industry and early scholarship were recognized with the creation of the Will Eisner Comic Industry Awards (the Eisners), which are annual awards given in various categories for creative achievement. These are considered the comic industry’s top award.

from the Brothers Grimm. The 1980s saw my youngest brother, Jason, experiencing story through not only “traditional” books, but also enjoying read-alongs with Teddy Ruxpin, an animatronic teddy bear, who moved and laughed as it “read” various books (from a cassette tape inserted into its back) that my brother could follow along with as well.

The Digital Age

These factors taken together, I would argue, are at the heart of a new age, a digital age. “It is widely agreed that Web 2.0 technologies, and related, literate, semiotic, and social practices, have transformative potential for communication, identity formation, and knowledge construction” (Beach et al., 2010, p. 161). The revolutionary nature of this shift was heavily discussed by academics. Some expressed notions like Baron, who noted that the computer offers “a paradigm shift not seen since the invention of the printing press, or for that matter, since the invention of writing itself” (1999, p. 19). Others suggested that it “took generations for the intellectual heirs of Gutenberg” to comprehend the shift brought about by the printing press, suggesting that with our shift to digital forms of communication, “one could expect a similar learning curve during the transition from print to hypertext” (Geison, 1996, p. 39).

These advances have also greatly expanded the ability of authors to use and incorporate multiple modalities (i.e. incorporating sound, images, video, etc. with or without text) as part of their narratives to aid in the creation of meaning (Nielsen, 1995). Further, this new technology has provided authors with an increasing array of potential platforms and tools (i.e., ESRI Story Maps, Spark, Storyspace and hypertext) at their disposal to both craft and share their works. The emergence of multimodal storytelling has and is challenging our concept of not only what constitutes a narrative, but also how it is told/experienced. Further, these changes also make it clear that it was necessary to reconsider “a number of problems that even quite recently required

no consideration” (Viires, 2005, p. 160). Such reconsiderations included what constitutes a narrative, if and how the various aspects of multimodal and digital literature alter a reader’s perception and understanding of the story, the role of reader and author, how meaning is made, issues of quality, etc.

Print ≠ Digital

Early scholars of digital literature used the same terminology as traditional literature scholars for essential concepts, like textuality and context, which have long been addressed throughout “the histories of writing systems and technologies” (Moje, 2009, p. 352). These similarities and the lack of features that differentiated digital texts from printed text led some early scholars to argue that electronic documents or texts were essentially digital copies of what existed on paper and, as a result, despite the radical shift in the medium that was conveying the text, the meaning of the text was not altered (Geison, 1996, p. 38). This in large part can be attributed to both our subservience to the printed page and “our inextricable rootedness in Gutenberg’s world” (Landow, 1992, p. 18). Indeed, our long history with the printed word has imbued the book and its conventions with the power to shape our thoughts and discourse to the point where we have difficulty stepping “outside that interpretive framework” (Geison, 1996, p. 37) that this provides in order to examine not only traditional text, but other forms of narrative as well.

Print = Digital

While the traditional page offers a well-established, organized and linear path that most readers understand² and are able to follow in order to acquire the information needed from the page (see Figure 1 for such an example) - a screen, whether it be on a desktop, laptop, tablet, or

² By this, I mean that, at least in Western culture, you begin read left to right and begin at the top of the page and work your way down the page.

phone can offer the reader “a range of possible reading paths, perhaps infinitely many”³ (Kress, 2003, p. 162) (see Figures 2-4). In doing so, authors and publishers alike have been freed from the narrow confines of the Gutenberg paradigm that has existed for the last 587 years (Landow, 1992, p. 18). No longer are authors restricted or limited by the traditional linear nature of writing (Askehave & Nielsen, 2005b). Instead, they now have the tools and freedom to challenge the traditional model of writing (Shanahan, 2006). Narrative can take a new, non-linear form (Askehave & Nielsen, 2005a), one that allows authors to create works that link out from the home screen to different sections of the same story, or to a site somewhere out on the world wide web (Dresang, 2008).

Further, the path a story takes may not be chosen solely by the author, but also by the choices made by the reader, and/or at random by the machine (Dresang, 2008). This ability means that one narrative can potentially have hundreds, if not thousands, of paths through it depending on the choices that are made (Kress, 2003). The first work to use this new narrative form called the hypertext story was Joyce’s *afternoon, a story* (2014). This critically acclaimed hypertext narrative began as, and still exists, only in electronic form (Şengün, 2013, p. 61). With its creation, and the addition of similar stories, a new area of research emerged; one focused on the idea of multimodality and its use in electronic texts.

³ Kress (2003) is referring here to the presence, or use, of hyperlinks within digital compositions. Hyperlinks are embedded code that allow a user to move from one section within a text to another section within the same text, from “one page or screen to another, [and/or from one website to the next] with a click of the mouse” (Herrington & Moran, 2009, pg. 6). Hypertext/linking now also includes the ability to embed fragments of sound, links to written text, or links to websites within photographs or illustrations as well. Because of this innovation, and its continuing expansion, no author can be certain how the text or narrative will be read or experienced. As Herrington and Moran (2009) note, this creates additional challenges and considerations for composers of such texts, but these lie outside the scope of this proposal.

The Emergence of Multimodality

As a result of the rapid and far-reaching impact technology was having on literacy practices, scholars and educators came to believe that it was no longer possible to privilege print and alphabetic forms and literacy practices over all others, if society is to meet the demands and challenges of the 21st century. This realization led The New London Group to issue a challenge to practitioners and scholars alike. They argued that the time had come “to rethink what we are teaching, and, in particular, what [are the] new learning needs that current pedagogy was failing to address” (Cazden et al., 1996, p. 61), and in particular, how have “the burgeoning variety of text forms associated with information and multimedia technologies” (ibid), like multimodal literature, necessitated this re-examination and expansion. The New London Group believed that our “understanding of literacy, literacy teaching and learning [must be broadened] to include negotiating a multiplicity of discourses” to prepare students to negotiate the “culturally and linguistically diverse and increasingly globalized” (ibid) society in which they find themselves.

Scholars, like James Gee and Cynthia Selfe, added their voices to those of The New London Group in arguing for a more expansive definition of literacy. Gee (2004), in his examination of videogames, argues, “People need to be literate in new semiotic domains⁴ throughout their lives. If our modern, global, and high-tech world does anything, it certainly gives rise to new semiotic domains and transforms old ones at an ever-faster rate” (p. 19). Selfe extends this argument to the teaching profession, “If our profession continues to focus solely on teaching only alphabetic composition - either online or in print - we run the risk of making composition studies increasingly irrelevant to students engaging in contemporary practices of communicating” (2004, p. 72). Further, Kress (2003) argues there is a “profound difference

⁴ Gee means that individuals need to understand and use multiple literacy practices to understand the world around them and to be able to effectively communicate with others.

between the traditional page and its reading path and the new page—derived from the principles of the organization of the screen—and its reading path” (p. 162) due to the ability of these documents to be “not merely digital pieces of paper” (Geison, 1996, p. 6). Indeed, the possibilities of incorporating multimodal forms of communication opened to authors and readers alike a “complex repertoire of semiotic resources and organizational means that people make meaning through – image, speech, gesture, writing, 3-dimensional forms, and so on” (Jewitt, 2008, p. 1098).

Elizabeth Birr Moje addresses the need for more research related to new literacies when she writes “that something new is happening, in terms of both cognitive and social practices [related to this type of literature], but I would argue that the specifics of that newness could be more developed” (Moje, 2009, p. 350). The need to examine multimodality and hyperlink narratives is further supported by a study commissioned by Scholastic in 2012. This survey of 1,074 children between the ages of 6-17 found that “the percent of children who had read an e-book had almost doubled since 2010 from 25% to 46%” (Scholastic, 2012, p. 7). Further, researchers saw an 8% decrease in the percentage of kids between the ages of 9-17 that said “they will always want to read books printed on paper even if e-books were available” (Scholastic, 2012, p. 64 & 67).

Clearly, the act of reading in a digital environment is becoming more prevalent and its affordances need closer study. However, it is not just the digital narratives themselves that require closer scrutiny, but also the act of reading within multimodal and digital narratives. Moje (2009) addresses this need when she writes,

One important step in this theoretical effort would be to distinguish between new media or texts and the literacies these might or might not demand. It is easy to

equate a new medium with a new literate practice or to confound the two by using the terms interchangeably, but the distinction between the two seems critical to doing careful research. For example, it may be the case that so-called old literacies are perfectly useful with new media. Conversely, new literacies may produce skills that support navigations of old media (i.e., print-on-paper media). The differences between the tool (the media) and the norms or conventions that shape meaning making of the symbols offered via the tool (literate practices) are not only worth noting but are worth distinguishing so that we can better understand the relative outcomes or consequences of each (p. 349).

In fact, the emerging popularity of digital literature and multimodal writing, has created an acceptance of multimodality as a tool for breaking apart and examining both literature and literacy (Agee & Altarriba, 2009; Al-Yaqout & Nikolajva, 2015; Bruce, 2009; Hodgson, 2009; Ladd & Fisher, 2011; Lancaster, 2003; Moje, 2009).

Research on Multimodality

Research as it relates to multimodality is a mixed bag at best. There are, of course, studies (ex. Bolter, 1991; Cazden et al., 1996; Gee, 2000; Kress, 2000a, 2000b, 2003; Kress & vanLeeuwen., 2006; Lankshear & Knobel, 2003; Selfe, 2004; Suhor, 1984; Wysocki, 2003) that need to be considered as an essential part of the theoretical underpinnings of this field. While the above works represent part of the theoretical foundation, they do not represent an exhaustive list of these early works about multimodality. These scholars began the exploration of what continues to be an expanding field of thought within composition studies, English, and education.

These works helped to change how the field thought about composition, text, what it means to be literate, and how we might adopt or modify existing theory to fit the changing and emerging digital world of the 21st-century. In addition, there have been numerous collections (Bruce & International Reading, 2003; Coiro, 2008; Cope & Kalantzis, 2003b; Herrington et al., 2009; Reinking, 1998; Selfe, 2007; Sidler et al., 2008; Wysocki et al., 2004) of scholarly work that have sought to discuss multimodality. Included within these collections are works that have sought to expand the theoretical framework of multimodality and argue for their inclusion within the curriculum (Takayoshi & Selfe, 2007; Wysocki, 2004a). Further, these works sought to develop and support a multimodal pedagogy (Kalantzis & Cope, 2000; Wysocki, 2004b), theorize about the impact of multimodality on learning (Cope & Kalantzis, 2003a; Siegel, 2006), and the impact of visual images have on multimodal thinking (Albers & Harste, 2007; Choo, 2010b; Duncum, 2004; Serafini, 2011a), as well as addressing other areas.

The works listed above have largely been theoretical in nature, with the exception of Kalantzis and Cope (2000), Gee (2000), and Siegel (2006), which make passing reference to previous research that the author(s) had conducted in the past, or that other scholars have published, in an effort to support the arguments that they put forth. It is important to note that some of the concepts addressed in this chapter are not new. Using a very minimal definition of multimodality - using two (or more) sign systems to interpret and understand a given composition, one could easily make the argument, as Heath and Wollach do, that multimodality is a concept that stretches back to the creation of text itself (2008) as the “interdependence of visual, communicative, and performative texts [can be] traced to the Middle Ages” (7). This argument can be supported further through even a cursory examination of children's picture books, graphic novels, and comic books (Nikolajeva & Scott, 2001). Additionally, this point can

be extended further if one considers more modern forms of communicative technology such as TV, film, cell phones, etc.

Theoretical Gap

Roswell and Pahl (2011) suggest that the concept of multimodality “is and was groundbreaking because it opened communicative events beyond the sole gaze of the written word to extend to other modalities. Taken up and used as an optic in other studies, multimodality increasingly becomes a way of breaking apart the literacy event” (p. 176) through its use of culturally accepted semiotic tools and its recognition that such an event is complex and multifaceted. Each of these tools, or modes, can be read and understood using their own form of grammar (Jewitt, 2006; Kress & vanLeeuwen., 2006), with each modality having its own set of rules and conventions that may, or may not, conflict with the grammar of other modes. For example, colors can convey symbolic meaning (red can mean anger, yellow = sickness, etc.). In addition, each color has a “weight” that must be considered when creating a composition for it to make sense or communicate the desired message. Music can be used to create mood and establish tension within a work. The same could be said for the style of illustration used. Photo-realism is going to convey a different aesthetic and therefore communicate something different than the use of cartoon or impressionistic illustrations. These are only a few examples of the way “grammar” must be considered in relation to these works and the impact they have on meaning.

It is the presence of multimodal elements that create a “different kind of pedagogy, one in which language and other forms of meaning are dynamic representational resources, constantly being remade by their users as they work to achieve various cultural purposes” (Cazden et al., 1996, p. 64). However, a major shortfall within the field of multimodal literature is that there currently is no widely accepted theory that adequately addresses the complexities of multimodal

literature and what does exist is not well developed.

Questions

Little research about how meaning is created and/or altered when multimodal elements are added to digital literature is currently available. This dissertation will examine the affordances and limitations that exist within an early attempt of one such “enhanced interactive publication” (McCoy qtd. in Wikert, 2012, n.p.), *Maus*⁵. By using a case study approach, I will examine an area that has received little attention as it relates to literature, and in particular electronic literature. In doing so I will address the following two questions:

- Do these digital tools challenge and alter our understanding of how narratives are composed, but are also understood? And if so, how?
- How does the use of multiple modes of communication employed within these texts work together, or against each other, to create within the reader/writer layers of meaning by helping to create personal connections that both complicate and clarify the text at hand?

As stated above, I will answer these questions through a case study of *Maus*⁶. Data will be collected using both Multimodal Literary Analysis (MLA) and close reading as methodologies. The data gathered through these methods will then be analyzed using Digital Radical Change Theory (DRCT) as my theoretical lens. My conclusions will reflect my understanding as a reader of how the various modes within *Maus* impact understanding and meaning making.

⁵ *Maus II* was published as part of *The Complete Maus*, a digital version that also contained *Maus I: A Survivor's Tale - My Father Bleeds History*. Besides complete copies of both graphic novels, the digital version included additional elements that were possible to include in the traditional book version. These included recordings of interviews that Spiegelman had conducted with his father, as well as family photographs, family videos, early sketches from the novel, copies of historical documents, etc.

⁶ Throughout the remainder of this dissertation, *Maus* refers to *Maus Book II: And Here My Troubles Began*, “Chapter 2: Auschwitz (time flies)” unless indicated otherwise.

Significance

George Landow (2006, 2007) argued that there is little agreement on how to approach the study of digital literature, what aspects are worthy of study, what theories one might use, whether the technology or literature itself should be the focus of the study, etc. While Landow (2006) suggests that this inability to come to agreement, is a result of our inextricable rootedness in Johan Gutenberg's world of print and, as Slatin (1990) adds, the culture it created. I would argue that this lack of agreement is due, in part, to the rapidly changing nature and abilities of both computer hardware and programming.

These changes continually alter the landscape of digital literature itself. Programs like Storyspace, while revolutionary twenty years ago, appear today to be quaint and old-fashioned. Additionally, technology that once helped make possible these early forays into the world of e-literature have been discontinued or abandoned by their developers⁷. These changes have outstripped scholars' ability to reach consensus as it relates to the study of multimodality. This concept is perhaps best expressed by Cynthia Lewis who stated, "We, as researchers and teachers of literacy (across all domains), have to start thinking about how to do research and to teach literacy practices for media we cannot even imagine" (qtd. in Moje, 2009, p. 359). Landow (1992, p. 38), echoes this lament when he suggests that many scholars operate under the belief that narratives, text, and documents contain their own logic, a logic that is seen as independent of the technology used to convey it.

This dissertation is significant due to its attempt to answer some of the above critiques by focusing on a surprisingly overlooked basic element of multimodality—the modes that are used, their interactions, and the resulting meaning that is created. This result is in part due to the

⁷ This includes an early browser plug-in, Adobe flash player, which enabled computers more easily access and run multimedia content from the Internet including sound, video, animation, etc.

inability or reluctance of scholars and the public to see the possibilities and challenges technology poses to literature and storytelling. Jay David Bolter noted a similar unwillingness when the printing press came into wide use. As Bolter posits, the first printers maintained the various notations and signs used by religious scribes to aid them in their hand copying of these various texts (1991, p. 64), even though these items often interfered with the reading and understanding of these works. Eventually these notations were dropped and with this change came a new logic to text and print.

Contribution of this Dissertation to Multimodal Studies

The introduction of the printing press, as we saw above, demanded an original approach to the creation of text. The introduction of electronic or digital literature is no different in its demands. As Gieson (1996) notes, “Hypertext leads to fundamental differences in the way readers perceive and respond to information” (p. 6). Hence, electronic documents are not merely digital pieces of paper and, as such, cannot be treated or thought of in this manner. Therefore, it makes sense that literature composed for and residing in a digital environment cannot be treated the same as literature that is composed for and resides on the printed page.

The digital story, and the digital page in which it finds itself, offers a radically different reading experience than that of the traditional print page. Gunther Kress (2003) argues forcefully for this idea when he writes:

But here lies an absolute and I think profound difference between the traditional page and its reading path, and the new page – derived from principles of the organization of the screen – and its reading path. The former coded a clear path, which had to be followed. The task of reading lay in interpretation and transformation of that which was clearly there and clearly organized. The new

task is to apply principles of relevance to a page which is (relatively) open in its organization, and consequently offers a range of possible reading paths, perhaps infinitely many. The task of the reader in the first case is to observe and follow a given order, and within that order to engage in interpretation (where that too was more or less tightly policed). The task of the reader of the new page, and of the screens which are its models, is to establish the order through principles of relevance of the reader's making, and to construct meaning from that (p. 162).

Kress furthers this point when he suggests that the growing popularity and availability of digital and multimodal texts is making the act of reading, and the literacy skills necessary to make meaning from these works more challenging, not less. "The demands on readers, [Kress writes,] and the demands of reading, will if anything be greater, and they will certainly be different" (2003, p. 167).

Raine Koskimaa echoes this by arguing that "with digital literature we are facing a wholly new situation. Cybertextual literature possesses devices for creating a different textual whole for each reader and reading session" by having the ability to create a "different [reading experience] each and every run. In this situation the reader may truly face a unique text, something that nobody else may ever see" (2007, p. 1). Further, the multimodal nature of digital literature has "expanded [our concept of literacy] to include engagement with texts in a range of semiotic forms: visual, aural, and digital multimodal texts" (Luke, 2012, p. 8). Such an approach requires "a need to understand the character of literary discourse, based on the material conditions of [the narrative's] existence and on the new conventions developed around it" (Koskimaa, 2007, p. 4).

Dissertation Organization

Following the conclusion of this introduction, the dissertation will be comprised of the following chapters: Chapter 2 will provide a brief overview and justification for my decision to focus this dissertation on multimodal electronic literature and placing it within the events of the 1990s to 2000s, due to these two decades marking the beginning of the digital age and the changes wrought by this shift.

Chapter 3 will focus on the methodology used to gather data that will be used to complete the analysis contained herein. This chapter will include a brief discussion of the methodology Multimodal Interactive Analysis (MIA). MIA provides the structural bones upon which my methodology is built. I will end chapter 3 with a discussion on how the various parts of MIA were used and modified to create my methodology, Multimodal Literary Analysis (MLA), as well as a discussion of how MLA will be used.

Chapter 4 will focus on an examination of the theoretical lens used to analyze the data gathered. This chapter will include a discussion of Radical Change Theory (RCT), which provides the foundational structure for the theoretical approach I created for this dissertation. Additionally, this chapter will also discuss the modifications made to RCT, the reasoning behind each, and how these steps come together to create Digital Radical Change Theory or DRCT.

Chapter 5 will provide my initial analysis of each modality that has been selected within the section of *Maus* for microanalysis. Using the technique of close reading I will examine how each modality works to create meaning individually. Next, Chapter 6 will offer a metanalysis of how the layering of these individual modes does or does not impact meaning for the reader using DRCT.

Chapter 7 will be the conclusion to this dissertation and feature a discussion of key findings, potential implications, and an evaluation of both DRCT and MLA as potential tools to examine multimodal literature. Additionally, the chapter will examine the limitations of this research, suggest potential areas for future study, and offer a few final reflections.

CHAPTER 2: THE DIGITAL AGE BEGINS – THE 1990s AND 2000s

Before continuing with this dissertation, it is necessary to clarify two points: 1) Why *Maus* was selected, and 2) What makes the digital version of the novels important. First, my selection of *Maus* was deliberate. Art Spiegelman's traditional book versions of *Maus I* and *II* were already established as "the greatest graphic novel ever written" (Cavna, 2016) when *The Complete Maus* was published⁸ by Voyager as a CD-ROM. Second, Bob Stein, cofounder of Voyager, wanted to "play a role in inventing whatever came next" (Salvador, 2016) after the book. Stein believed CD-ROMs allowed him and his team the opportunity to experiment with new forms of storytelling, despite his belief that CD-ROMs were a "transitional medium" (ibid).

As a result of these two factors, *The Complete Maus* is emblematic of both the promise and the shortcomings of electronic literature in the '90s and '00s⁹. This 20-year span was shaped in part by a confluence of events related to both technology and society's ability to access and use it. As I discussed in the previous chapter, these decades are of great cultural significance due to the fact they mark the end of the age of print and the arrival of the Digital Age. Two of the hallmarks of this new age are access to computers and other technology and the ability to access the web and its fount of information. Scott McCloud, author, believes it is hard to overstate the importance of these two elements and, I would posit, these two specific decades. McCloud asserts that the development of computers and the creation of the internet was "*the biggest collaborative positive effort in recorded history*" (McCloud, 2000, p. 199, emphasis in original) and that this new age "[was] still in its *infancy*" (p. 149, emphasis in original) during this time period. Because of this, McCloud warned of "*dramatic shifts* in how computers *process images*,

⁸ *Maus I* has won numerous national and international awards. These have included a Pulitzer Prize and an Eisner Award in 1992.

⁹ This assertion will be further developed later in this dissertation.

how we *manipulate* them, how we relate to *art* and *technology*” (ibid) and the impacts on society that these shifts would cause. This period would not only alter and shape society at the time, but its effects are still being experienced today.

The Digital Age is Born

The “genetic code” of the Internet came into being in 1995 when Tim Berners-Lee, a British researcher working at CERN, published a paper outlining what would become known as Hyper Text Markup Language or HTML (Williamson, 2021). While HTML formed the building blocks of the web 30+ years ago (and is still used today), it is limited in what it can do.

Webpages created in the early 1990s were little more than static text and images; Early scholars claim that the web offered its readers little more than mere digital versions of the letters, magazines, newspapers, or books that already existed were, initially, correct. However, technology was not done evolving. Technical advances, like the development of the Pentium processor in 1993, would improve the ability of PCs to incorporate graphics and music (ibid).

The impact of these advancements would have been far less significant without a virtual environment to explore (i.e., the internet). Initially, the Internet was solely the domain of academics and the military. In 1991, the National Science Foundation, which was in control of the Internet, “for the first time” allowed the public access to the network “with no commercial restrictions” (*Timeline*, 2023). This open access allowed anyone with an Internet capable device¹⁰ and a hardline Ethernet connection¹¹ (ibid), to venture into this new virtual world; a world that would create new possibilities for human interaction, communication, and storytelling.

These new possibilities were further fueled when “Silicon Valley [began] to invest in the commercial possibilities of the Web - [which included] Java and the formation of Netscape”

¹⁰ Early on, only computers could access the Internet.

¹¹ At Ethernet connection was required to access the Internet until the emergence in 1999 of wireless connectivity.

(ibid) providing a more convenient way for the average person to access the Web. As a result, the public rapidly embraced this alien world by joining this rapidly growing online community. This is evidenced by the astounding increase in the number of web users that existed in December 1995 (16 million) to the 1.18 billion web users in December 2005 (*Internet*, 2023). President Bill Clinton even noted this change in 1996 when he remarked, “When I took office, January of 1993, only high energy physicists had ever heard of what is called the World Wide Web... Now even my cat has its own Web page” (*Excerpts*, 1996).

In addition to investment in the Internet, companies also began introducing various digital devices designed to not only teach the basics of reading and writing, but also, I would argue, teach how to navigate the digital world that they were helping to create. For example, my daughters¹² learned to read and write in part by playing with Leapsters and Leap Pads. These were electronic devices that you could purchase various “game” cartridges for or as in the case with Leap Pad, different books¹³. Many of the titles offered were educational. For example, I remember both girls learning how to write using their Leapsters. To see Cinderella dance, they had to trace each letter on the screen using the stylus. Other cartridges helped them sound out words from stories and learn the alphabet. These experiences also helped them learn how to navigate through these programs by using touchscreens and drop-down menus.

Web 2.0

Just as the printed word evolved from hand-copied manuscripts to mass-produced texts, the digital world continued to evolve. Advancements in both technology and its capabilities continued. In 1994, the first smart phone was introduced (Smith, 2018). The creation of

¹² Mikayla was born in 2002, and Madelyn was born in 2005.

¹³ The Leap Pad also used a stylus of sorts that the child would use to interact with the book. For example, one use of it was to run the stylus over the text and it would read aloud the story.

JavaScript in 1995¹⁴ (*Timeline*, 2023) signaled the end of yesterday's staid web pages as they were replaced by the dynamic and interactive Web 2.0¹⁵ versions of today. Apple began selling the first iMac in 1998 (ibid). Firefox became the first to challenge the dominance of Explorer in 2004 (Williamson, 2021). Windows 7 was launched in 2009 and the following year the world was introduced to the first iPad (ibid). With each advance, our ability to access the Internet using ever more portable devices, such as laptops and cell phones, increased. "It is widely agreed that Web 2.0 technologies, and related literate, semiotic, and social practices, have transformative potential for communication, identity formation, and knowledge construction" (Beach et al., 2010, p. 161). The magnitude of these and other shifts was perhaps best expressed by Darcy DiNucci who wrote, "The relationship of Web 1.0 to ... [Web 2.0] is roughly the equivalence of *Pong* to *The Matrix*" (1999, p. 32).

Academics heavily discussed the revolutionary nature of this shift. Some expressed notions like Dennis Baron, an English language and linguistics scholar, who noted that the computer offers "a paradigm shift not seen since the invention of the printing process, or for that matter, since the invention of writing itself" (1999, p. 19). Others argued that it "took generations for the intellectual heirs of Gutenberg" (Geison, 1996, p. 39) to comprehend the shift brought about by the printing press. This suggests that with our shift to digital forms of communication, "one could expect a similar learning curve during the transition from print to hypertext" (ibid).

The technologies associated with Web 2.0 have challenged our understanding of writing and storytelling. These changes require that both writers and readers must adjust their concepts

¹⁴ JavaScript enabled webpages to become more interactive. This helped to promote the addition of images, video, and music.

¹⁵ The term Web 2.0 is widely attributed to publisher Tim O'Reilly. However, it was first used in the January 1999 issue of *Print* magazine by author Darcy DiNucci in her article entitled "Fragmented Future." In this article, DiNucci argues, "the web, as we know it, is a fleeting thing, Web 1.0." She continues, "that the first glimmerings of Web 2.0 beginning to appear, we are just starting to see how the embryo might develop" (1999).

of what a narrative is and how story is told. Changes brought about by this shift include the newfound ability of readers to control - at least to a certain extent - what they experience, the direction and course of the narrative, etc. This new multimodal form of literature provides us, as readers, with the opportunity to see “a unique form of narrative in which the story is linked among mediums through the echoing of words, images, characters, and environment. To get the story, the reader has to play within and among the various mediums” (Davidson, 2008, p. 12). Thus requiring the reader to actively engage with the narrative in order to “transform knowledge by producing new constructions and representations of reality” (Cazden et al., 1996, p. 76) by “expanding [her/his understanding of the] relationships between text and other representational forms” (Rhodes & Robnolt, 2009, p. 156).

As both of my daughters grew, they left behind their Leapsters in favor of other digital devices such as tablets, laptops, and smart phones. As tweens, they both explored storytelling through their use of digital tools such as Wattpad, where they would post American Girl, Harry Potter, and Hamilton fanfiction they had written. Additionally, both actively read and commented on the work of others. In this virtual online world, they found a supportive community that encouraged their creativity. Throughout their teens, both continued to create and explore various digital tools (such as Photo Story, Audacity, etc.) that they could use to continue to share their stories. The skills they learned during this time are ones that they still use as they navigate the world as young adults.

These experiences helped to fuel my interest in how a reader interacts with and understands digital text. This interest serves as the foundation of this dissertation. How a reader works with, and between, modes to create meaning is a fertile field for examination and study. The new possibilities created by the use of digital methods of storytelling requires the adoption

of a new and original approach. One effort to accommodate the changing semiotic landscape was the creation of new fields and areas of research, such as “new literacies” and/or “multimodalities.” These categories are an

attempt to name the fast-moving flows of the Internet and other nonprint media, and the literacies, practices, and competencies such media require. In addition, new and multiliteracies [have] the potential to change thinking about knowledge, communication and education, particularly with respect to the value of collaboration, inquiry and learning, and creativity and knowledge construction (Bean & Harper, 2011, p. 63).

The growing prevalence of digital devices (e.g., Mp3 players, tablets, smartphones, laptops, netbooks) has only increased the demand for scholarly work that will help scholars to understand the differences that exist in the ways individuals communicate and make meaning within this changing landscape.

Digital technology and its pervasiveness as a communication method has altered the reader’s role from that of a passive consumer of text following the linear narrative that has been laid out for them into a co-creator of sorts. The addition of hypertext, multiple modes of communication, the ability to determine what the reader/author experiences, the order that these modes are experienced in, and the direction and course of the narrative, etc. all call upon the reader to be active in order to transform “knowledge by producing new constructions and representations of reality” (Cazden et al., 1996, p. 75). As a result, meaning is made through “the various ways information is communicated and [the] expanding relationships between text and other representational forms” (Rhodes & Robnolt, 2009, p. 156).

This melding of experiences and modes will not, Kress (2003) notes, make reading easier, “The demands on readers, and the demands of reading, will, if anything, be greater, and

they will certainly be different” (p. 167). Readers will not only rely on their ability to move between sign systems, but they will also be required to create meaning intertextually. Hartman (1995, p. 520) suggests that both words and images should be seen as types of texts whose meaning is created within the mind of the reader through a process that weaves together the reader’s understanding of both the physical manifestations of the text/image and their conception of what they mean. Hartman (1995, pp. 557-558) extends this argument by suggesting that meaning is further made through their incorporation of the varied reading experiences, past and present, that they have had. These experiences work together to create meaning. Multimodality utilizes this same process.

Multimodality, which is a way to discuss digital literature, is still an underdeveloped field of research. While there have been studies (Alexander, 2008; Duncum, 2004; Hodgson, 2009; Kress & vanLeeuwen., 2006; Nikolajeva & Scott, 2001; Poyas & Eilam, 2012; Rudd, 2003; Thomas, 2011; Wysocki, 2003) that have sought to examine how visual images work in conjunction with text to communicate meaning, disrupt a reader's understanding of a text when juxtaposed with an arbitrarily selected image, or how to read a visual in order to decipher the meaning, there has been little research that has sought to examine how “digital compositions *weave* words and context and images [together, and] are exercises in *ordered complexity*” (Yancey, 2004, p. 95, emphasis in original). It is through this weaving together of multiple modes that creates a complexity that is different “than print precisely because [it] include[s] more kinds of *threads* that” create meaning (ibid)¹⁶. Nor have there been any studies that have sought to examine how, or if, a reader’s understanding of a text is complicated and/or expanded when one or more additional modes are incorporated into the narrative.

¹⁶ This concept will be developed more fully in Chapter 4 on theory.

For example, a reader who “reads” a text by listening to an audio book, experiences and understands that text through the frame or lens of only that one mode (sound/auditory). If that same reader, then “reads” the same text as a traditional printed book, this second experience will be colored and shaped by the “reading” that came before it. Additionally, the printed version may contain illustrations, or physical representations of text or materials created by characters within the text that are absent in the audio version¹⁷. This dissertation seeks to establish a new foundation for the examination of multimodal literature that future scholars can build upon through my creation of both a new theory and methodology. Both build on previous work specifically Dresang’s Radical Change Theory and Norris’s Multimodal Interaction Analysis, respectively.

In this chapter, I outlined my reasoning for focusing this dissertation on the 1990s and 2000s. I also discussed how the development of affordable home computers made these devices far more accessible. This combined with their ever-increasing power and capabilities brought tremendous change. Finally, I examined how these factors opened new possibilities for writers to incorporate multimodal elements within both print and electronic texts. Doing so caused a seismic shift in our thinking about literacy and what constitutes a text. The chapter that follows will outline the methodology that will be used in my examination of the digital version of *Maus* that was included as part of the print book *MetaMaus*. This DVD includes a digital/electronic copy of the novels and additional multimodal elements not found in a print version. This fact

¹⁷ This is the case in *The Book Thief* by Markus Zusak. The novel contains a story written and created by one of the characters, Max, and given to another character. The book by Max is created by painting over the pages of *Mein Kampf*. In *The Book Thief* itself one can see the handwriting of Max and his illustrations that accompany a story, as well as some of the words of *Mein Kampf* that have bled through the paint. This visual experience and the extra layers of meaning this adds to both the story and the readers understanding of Max are absent from the audio book.

makes this DVD version of *Maus* a prime example of both the promise and shortcomings of digital multimodal literature.

CHAPTER 3: METHODOLOGY

In chapter 1 of this dissertation, I presented a broad overview of scholarship focused on multimodality and the range of ways scholars have approached the need to include this subject in the curriculum, how multimodality and digital tools may impact learning, and the necessity to master these to successfully navigate an increasingly digital world. Although these past works provide a rich backdrop, none of them provide an explicit methodological approach to study how multimodality and how its use in digital literature may challenge a reader's understanding of what a story is, how it can be told, and how meaning is shaped and altered through the interplay of the multimodal elements incorporated into these works. In this chapter, I thus turn first to Sigrid Norris, a prominent scholar in the field of communication studies, who published *Multimodal Discourse: A Methodological Framework*. Norris argues, in this text, that traditional linguistic analysis with its primary focus on verbal and written language is no longer enough. Instead, Norris contends that linguistic analysis, and in particular how it relates to the dynamic nature of interpersonal communication, must move "away from the notion that language always plays the central role in interaction" (Norris, 2004, p. 2) and acknowledge, as many scholars already have, that language "is only one mode among many" (ibid). Therefore, it is necessary for researchers, if they are to gain a more comprehensive understanding of what transpires during an act(s) of interpersonal communication, to utilize tools that acknowledge both the complexity and multimodal nature of the interaction(s). Unable to find a suitable method, Norris created Multimodal Interaction Analysis (MIA) to accomplish this goal.

While MIA is an effective methodology to examine personal interactions between individuals and/or their environments, it is, I believe, not a fully workable tool for the study of the multimodal aspects of digital literature, which is the focus of this dissertation. Further, I

would assert that there currently does not exist a methodology that allows researchers and scholars of digital literature to “analyze [multimodal] interactions in their complexity” (Norris, 2004, p. 7) within digital forms of literature in a similar and systematic way. Therefore, the remainder of this chapter will be divided into four sections.

First, I will provide an overview of MIA’s structure, what it seeks to do, and how it is currently being used in research. Second, I will outline how MIA serves as a starting point for the development of a methodology suitable for use in this dissertation. Third, I will provide a framework and explanation of my proposed methodology, called Multimodal Literary Analysis or MLA, which builds on the structural bones of MIA. This section will note the elements of MLA that overlap with Norris’s methodology and those areas which have been added or altered to create a suitable tool to examine multimodality within digital literature. Finally, this chapter will conclude with a brief examination of how MLA will be employed in the analysis of *Maus*.

Overview of Multimodal Interaction Analysis

As a methodology, MIA marks a significant departure from traditional linguistic analysis. This in part is because Norris argues that “all interactions are multimodal” (Norris, 2004, p. 1) in nature. While MIA acknowledges that meaning is, at least in part, created by the intertwining of the various modalities present in any given (inter)action and by the various participants understanding of these elements, practitioners of MIA are “*only* concerned with what individuals express and others react to. [They] are *not* concerned with what people are actually perceiving, thinking, and feeling” (Norris, 2004, pp. 4, emphasis in the original). MIA “sets out to understand and describe what is going on in a given interaction” (ibid) by analyzing “what individuals express and react to in” (ibid) response to “the words, gestures, facial expressions, etc. of others” (ibid). This focus equips researchers to conduct such an analysis by considering various semiotic

resources/modes (e.g., images, sounds, gestures, spatial arrangements) and how these, as a singular experience, create (re)action(s). Norris (2004) outlines four key ideas that form the basis of MIA; these are summarized below:

- Communication and meaning often occur through multiple modes simultaneously (e.g., the combination of text and visuals within a magazine article, or video that includes sound/music).
- Various modes interact with each other to create deeper understanding/meaning (e.g., how hand and facial gestures enhance the understanding of spoken language, or how images can extend the meaning of text).
- Context (setting, audience, purpose, etc.) influences not only how various modes are used but, also, how they are interpreted.
- Changes and advancements within technology and how it is used results in the evolution of multimodal methods of communication (e.g., the blending of text, images, emojis, videos)¹⁸.

Multimodal Interaction Analysis Framework

One of the primary strengths of MIA is the contention that meaning is not created in isolation, nor is meaning solely created through the written word. Norris echoes Elizabeth Moje (2009) who also disputed the idea that meaning is created by “print and print alone” (p. 352). Instead, Norris contends that no one mode within a multimodal exchange and/or text is the sole arbitrator or creator of meaning. MIA argues that meaning is created not only through one’s understanding and recognition of each mode being used, but also through the physical and verbal

¹⁸ While the inclusion of technology within this list may seem incongruous to Norris's primary focus on “live” interpersonal communication, it isn't if one considers how technology facilitates communicative events like Zoom meetings, synchronous online instruction, and other forms of “live” interpersonal communication. Additionally, this could also include the use of technology as part of the (inter)action itself (e.g., watching a TikTok together).

actions/reactions that occur during a communication event (Norris, 2004, 2019). Further, MIA posits that meaning is created through the interplay of modes in such a way that an individual's understanding of an event exceeds the sum of its individual modes (Norris, 2004).

Within MIA, the researcher selects a topic or area of interest for study and begins to develop research questions (please refer to Appendix A: Multimodal Interactive Analysis Overview for an overview). Next, the researcher selects an interactive¹⁹ communication event that aligns with the research questions that have been established. The researcher begins their data collection by videotaping the event/interaction(s) as it occurs. After these events are recorded, the researcher watches the recording for the first time. During this initial viewing, the researcher takes field notes. According to Norris (2019, p. 89), these field notes highlight anything that jumps out at the researcher or that they felt was particularly interesting. In addition, the researcher records their overall impression of what transpired during the interaction. Next, the video is viewed for a second time and the transcription begins with the focus being on higher-level mediated actions²⁰. The higher-level mediated actions that are observed are recorded on a data sheet, like the one in Figure 5. These higher-level actions provide a framework for understanding how smaller, more immediate actions (lower-level actions²¹) come together to form meaningful social interactions (Norris, 2004, pp. 79-94). Within MIA it is a given that higher-level actions are composed of several modalities and that no one mode is more important

¹⁹ Norris, on page 4, defines an interaction as “the exchange of communicated (expressed, perceived, and thereby interpreted) experience, thoughts, and feeling of participants” (2004).

²⁰ “Higher-level mediated action is defined as the *coming together of a multitude of chains of lower-level mediated actions*” (Norris, 2019, p.43, emphasis in the original). In more straightforward terms, higher-level actions are broader, social activities composed of multiple lower-level actions that have a distinct starting and ending point.

²¹ “The lower-level mediated action is defined as a *mode's smallest pragmatic meaning unit*. The term *pragmatic* is defined here as in use (i.e., language in use, gesturing use, object handling and use, layout, and use)” (Norris, 2019, p. 40, emphasis in the original). For example, a participant in the above interaction saying, “Hello,” would be an example of a lower-level mediated action. It would *also* be part of the higher-level mediated action (i.e., the friends greeting each other). Essentially, higher-level, and lower-level mediated actions inform, interact, and alter each other in a recursive fashion.

than any other mode within an (inter)action; nor does any single mode dictate or control the structure or meaning of an exchange more than any other mode (ibid).

Next, based on their field notes and research questions, smaller segments of the interaction are selected for microanalysis. The analysis begins with the selected segment(s) being viewed repeatedly. During these viewings, the researcher creates a list of all the modes present in the interaction. Once this is completed, the researcher separates/isolates each mode from the other modes/elements within the interaction under study (as much as possible). This allows the researcher to concentrate on one mode at a time, thus preventing them from becoming overwhelmed by the number of modes that a given interaction may contain (Norris, 2004, p. 13).

As the researcher views the recording of the interaction, they record each occurrence of the mode and any reaction/(inter)action that occurs. This process is repeated multiple times for each modality (e.g., hand gestures) to ensure that all instances of that mode are identified within the selected section. Each time the mode is used in the action/interaction, the relevant information for all the parties involved is recorded on the observation sheet. When the researcher is satisfied that they have identified all the instances of that one mode, the process is repeated using a different mode until all the identified modes within the microanalysis section have been through this process.

Following this step, the field notes from above are combined and integrated. This is done by adding one mode at a time to the final transcript. Language/text, as well as notes on the physical environment, (inter)actions, and/or objects used are also added to the transcript. This procedure provides the researcher with the opportunity to study how each mode interacts with

one another²². By interweaving each mode with the others, a more complete picture of the interaction(s) that occurred is created and ready for analysis²³. The interaction(s) of the various modes present during this event reflects a core idea of MIA, which is that no “one mode is inherently more important than another; and the importance of a mode is always established by investigating the given modal configuration” (Norris, 2004, p. 112). As the researcher is creating their final analysis of the combined material, it is important to keep remember “that one and the same action – like looking out of a window – can have many different meanings, intentional or unintentional” (Norris, 2004, p. 4). At the end of this process, the resulting document provides a clear representation of the event(s) and/or interaction(s) as the complex multimodal “text” that it is.

Additionally, MIA seeks to address another challenge related to the analysis of multimodal interactions, which is “the fact that different communicative modes possess different materiality. For example, spoken language is neither visible nor enduring, but it does have audible materiality. Gesture, however, has visible materiality but is also quite fleeting. The mode of print has more visible materiality and is also enduring” (Norris, 2004, p. 3). The transcription process of MIA overcomes these differences in materiality and creates an enduring record of the studied event.

While MIA began its life in the field of communication studies, it has been adopted by various researchers as a methodology in other academic areas. One such example is its use in the field of educational technology (Malinverni et al., 2018). Malinverni et al. sought to develop and

²² It is important to note both verbal (rate of speech, intonation, etc.) and nonverbal actions (gestures, facial expressions, etc.) may or may not be conscious decisions. Additionally, it is also imperative to keep in mind that these cues often occur simultaneously and are used/processed by individuals to aid them in both constructing meaning during the social interaction and in constructing the response/reaction.

²³ To conduct this analysis the researcher would follow the steps outlined in Appendix A: Multimodal Interactive Analysis Methodology.

evaluate a participatory design methodology for creating Full-Body Interaction Learning Environments (FUBILEs) by combining MIA with Participatory Design techniques. The resulting methodology was applied to two case studies to demonstrate the benefits this combined approach offered during the design processes. The study involved students participating in the design of FUBILEs that combined physical activity with digital technology. The researchers utilized multimodal approaches, including techniques such as drawing, the creation of simple prototypes, and embodied exploration, to accomplish their goal of including students in the design process. By doing so, the researchers were able to demonstrate that this methodology was not only effective in engaging students throughout the entire process, but that the students also provided valuable insights and innovative design ideas to enhance the learning environments being created.

Additionally, Pedagogy Analysis Framework was combined with MIA to analyze and understand the pedagogical tactic of grouping and ungrouping students in classrooms using MIA's video-based methodology (Riordan et al., 2024). This study allowed researchers to identify several types of (un)grouping that were occurring. The aim of the study was to explore how their Pedagogy Analysis Framework could be used to analyze the various types of (un)grouping processes previously identified. The study was done to provide insights into an important but under-researched aspect of classroom management and pedagogy. This research led to the development of the Exclusion, Segregation, Integration, and Inclusion (ESII) model that sought to address this issue.

A final example of MIA being adopted by other academic disciplines occurred in the field of health professions education. Rachul and Varpio (2020) used MIA to explore how multimodal modes can be used to investigate communication practices in healthcare and health professions

education (HPE). This article provides an overview of MIA; as well as an example of how MIA was used to design and conduct a case study that examined clinical reasoning and patient documentation practices in healthcare and HPE. Rachul and Varpio (2020) argue that MIA is a valuable tool to better understand how multiple modes of communication (e.g., language, gestures, images) work together to shape meaning within these two specific contexts.

Multimodal Interaction Analysis Shortfalls

Norris, in her creation of MIA, developed a clear and understandable approach to break down the multimodal aspects of an event, attempt to analyze each aspect in isolation, and bring these disparate elements together in an effort to better understand how these multiple modes within an event work together to aid/alter the creation of meaning. However, MIA, as is, requires some expansion before it will work as a methodological tool to use in a close reading of the digital text at the heart of this dissertation. This is primarily for two reasons.

First, Norris repeatedly states that the primary focus of MIA is the (inter)action (both action and response to the various modes) that occurs within a “live” communicative event. As a result of this focus, MIA includes in its analysis the idea of materiality, which was discussed earlier. It is this exchange between the participants in the live event, the actions that participants perform, and the response to these by other participants that Norris seeks to examine and understand in her research. Unlike the communicative modes that Norris discusses, the modalities present in digital literature—and indeed all literature—are bound or static as they exist in the form that conforms to its programming and/or construction; as a result, the outcomes or actions based on the (inter)action(s)/reactions of its reader(s) are unalterable as they relate to mode and presentation. Obviously, in a dynamic, interactive context like interpersonal

communication, outcomes or actions emerge from the exchanges that occur during a communicative event that cannot be foreseen or predicted.

Second, as has been discussed earlier, Norris explicitly states that MIA is not concerned with what an individual is thinking, how they understand a given mode, or how they understand the interaction of multiple modes²⁴ (Norris, 2004, p. 45). Instead, MIA sets out “to understand and describe what is going on in a given situation. We analyze what individuals express and react to in different situations, in which the ongoing interaction is always co-constructed” (Norris, 2004, p. 45). This dissertation seeks to examine precisely these three events.

Both principles make MIA an effective methodology to examine interpersonal interactions. However, always focusing on “actions that [are] being performed (and *not* the language spoken, text, or any other mode” (Norris, 2004, p. 33) requires some methodological adaptation if I am to use this in my analysis of *Maus*. Further, I would assert that currently there does not exist a methodology that allows researchers and scholars of digital literature to “analyze [multimodal] interactions in their complexity” (Norris, 2004, p. 7) in a similar and/or systematic way as MIA. While MIA, in its current form, does not provide this type of tool, it does provide the essential framework on which to build such a methodology.

Introduction to Multimodal Literary Analysis

By building upon the structural bones of MIA, my aim is to create just such an approach. This new methodology, adapted from MIA, is Multimodal Literary Analysis or MLA, which gives scholars of digital multimodal literature a similar qualitative, systematic, and theoretically grounded tool that aids in the study of these types of works and how meaning is created within them. MLA borrows various approaches from MIA and narrows its focus in two ways. First,

²⁴ According to Norris it is impossible for the researcher to truly know, as an outside observer, what someone is thinking or how they understand a situation.

MLA, as it is being applied within this dissertation, focuses solely on multimodal digital literature²⁵ and not on the(inter)actions of individuals during a “live” exchange. Second, MLA, unlike MIA, is concerned with what a reader is thinking and/or how that reader understands a given mode or the interaction of multiple modes. Third, it attempts to analyze how various modes, and their interplay create meaning during a close reading of a given digital text.

Such a focus, I contend, is essential to be able to fully understand how multimodal elements create/communicate meaning for a reader in the context of electronic literature²⁶. This ability is necessary because, as Gunther Kress (2000c) wrote, “It is now impossible to make sense of texts, even of their linguistic parts alone, without having a clear idea of what these other (multimodal) features might be contributing to the meaning of a text. In fact, it is no longer possible to understand language and its uses without understanding the effect of all modes of communication that are present in any text” (p. 337). If we assume that *all* texts are multimodal in nature, then it should be clear that MLA fills a void within multimodal research by providing a tool to analyze multimodal digital texts through an examination of how various modes within a given work help to create meaning for a reader through the layering and interplay that occur between the various modalities present.

As seen in Appendices A and B, both the structure and steps present in MLA reflect those found within MIA. Additionally, MLA echoes the argument that meaning is created not only through one’s understanding and recognition of each mode being used, but also our understanding and familiarity with the “social, cultural, and institutional practices and discourses” (Norris, 2019, p. 258) that shape our ability to understand and create meaning from a

²⁵ While it is beyond the scope of this dissertation, a potential area for future research would include an attempt to apply MLA to multimodal print literature.

²⁶ I would also argue that such a focus is also important for how multimodality aids in meaning creation within traditional print literature as well.

wide variety of modalities that exist in our modern world. Further, MLA supports the contention put forth by Norris that meaning is created through the interplay and layering of various modes, one upon another, in such a way that an individual's understanding of a given text exceeds the sum of its individual modes (Dresang, 1999; Norris, 2004).

Multimodal Literary Analysis Process

In the interest of brevity, I focus here on Steps 5 and 6 as outlined in the MLA methodology chart (see Appendix B) as these relate directly to the gathering and recording of data. Once texts/sources for study have been selected, the process of transcription takes place. My first step is to do an initial reading/viewing of the text being studied. During this first reading/viewing, I will take field notes. The initial organization of data also utilizes a concept like Norris's Higher-level actions that were discussed earlier. Higher-level actions, within MIA, are actions or events that have a specific beginning and ending. While it could be argued that such events (in the form of scenes, the end of chapters, and the reality that all narratives does eventually end) can and do occur within electronic literature²⁷, I believe that for MLA it is more valuable to instead focus on creating a plot summary of the work under study, as well as other multimodal elements that are noteworthy or particularly interesting (refer to Table 1). Once this initial reading is complete, I will create a summary of the text. To aid in my exploration, I will narrow the focus of this dissertation to dive more deeply into the research questions previously discussed. I will achieve this goal by selecting a specific section from the two works found within *The Complete Maus* for a focused microanalysis. For this study, I have selected eleven specific pages²⁸ from *Maus*, which are representative of both the modalities and the types of

²⁷ The same can also be said for traditional print literature.

²⁸ Specifically, I am using pages 201-203, 211, 220-223, and 232-234. These page numbers correspond to the ones listed in *The Complete Maus* which is included on the DVD that comes with the purchase of the *MetaMaus* book.

interactions I am seeking to study. *The Complete Maus*, I would argue, is significant because through each iteration, it has enjoyed tremendous critical and commercial success²⁹. *Maus* capitalized on the affordances related to the technology and its ability to incorporate multimodal elements in its storytelling. This was in part because CD-ROMs, as a medium, were well suited to provide “discrete, authored experiences where the form of it mattered a lot, where the presentation of it and how it was structured” (Salvador, 2016) were equally important.

SAMPLE FIELD NOTES FOR INTIAL SCREENING

Date: 8/12/2024

Name of Source: *Maus*

Time/Page Number: *Chapter 2, Pages (A video or similar electronic text would include the navigation What chapter, page numbers, or part of the digital text this set of notes relates to)*

Description of Text: *Brief plot summary of the piece of literature. This description aids in selecting smaller sections for focused microanalysis of the text that seemed to not only contain the interaction of multiple modes but also could aid in our answering of the project’s research questions.*

Table 1 Sample Field Notes for Initial Screening

Using this material, I will assess my observations in the context of my research questions, so that I can select smaller segments of *Maus* for closer analysis. Following this initial viewing/reading, I will create a list of modes present within the story. This process closely follows that of MIA and utilizes a similar transcription and data organization method. It does, however, substitute other modalities of communication (e.g., illustrations, font choice, use of color) in place of physical (re)action(s) like facial expressions and gesture³⁰. The summary will help to provide a framework for understanding how and/or what the literature is attempting to communicate to the reader, the mode(s) being used to accomplish this, and identifying potential areas for closer examination. I will make every effort to ensure that areas selected for

²⁹ This is true for each of the three versions available of *The Complete Maus*.

³⁰ This is assuming that the electronic text does not contain or video. If it does, this will be included in the transcription as well.

microanalysis contain a representative sample of the types of modalities present and the general pacing/structure of the narrative.

SAMPLE FIELD NOTES ON A MODE FOR MAUS			
Date: 1/12/2024			
Name of Source: <i>Maus</i>			
Time/Page Number: <i>Page ## to ## (What chapter, page numbers, or part of the digital text these notes relate to).</i>			
Mode Present: <i>Each mode that is identified within the microanalysis section is listed here.</i>			
<u>Reference Point</u> (Pg. #, panel #, and/or name of subarea)	<u>Mode</u> (Name of mode being recorded)	<u>Evidence of Mode</u> (Description of how, where, and/or when mode is present. Could include screen captures.)	<u>Initial Analysis</u> (Initial thoughts on what, how, and/or why the mode is working as it relates to meaning creation. Field notes are created for each mode)
<i>Pg. 45, Panel 2</i>	<i>Image</i>	<i>Description or screenshot or copy of the panel in question</i>	<i>Initial analysis for if, and how, the mode of IMAGE creates meaning for the reader.</i>
<i>Pg. 45, Panel 4</i>	<i>Image</i>	<i>See above</i>	<i>See above</i>

Table 2 Sample of Completed Field Notes on Image in *Maus*.

Next, I will choose one mode to begin my initial data collection with. I will read that mode in isolation and, as in MIA, read the selected text several times focusing on a single mode. Unlike MIA, I am going to attempt to isolate³¹ each mode from the others that are present. This will be achieved by deleting text to focus on image, randomizing the order images are viewed in to minimize the impact of layout, viewing images individually, creating a transcript that separates text from the other modes, etc. I would argue that by isolating each mode I am enhancing my ability to examine what each modality is attempting to communicate. By focusing and identifying one modality at a time, I am enhancing my ability to identify the representation(s) of that mode and preventing myself from becoming overwhelmed by the data and preventing my analysis of one modality to be influenced by the presence of another. These field notes will include the name of the focus mode, page and panel number, a brief explanation

³¹ As much as this is possible.

of what is occurring in the mode, and my initial analysis. I will repeat these initial steps focusing on a different mode until the data from each has been recorded (refer to Table 2).

Next, I will begin transferring the data from each set of field notes/datasheet(s) onto a final cumulative set of field notes in which notes for the various modes will be organized. Data will be organized based on the page number and panel number that the data point appears on³². Once complete, this final data sheet will be used as the basis for my metanalysis. This approach has a two-fold purpose. First, by isolating and placing the modal data that has been identified and organized according to page and panel location, this aids in the metanalysis discussed below. Doing so also reflects MIA's and MLA's shared contention that no one mode is more important than another within a given text. The weight of each mode as it relates to meaning is determined through analysis. As with MIA, the initial and cumulative transcription process provides me with an opportunity to study each mode individually and study the interaction of each mode with the others present. By doing this, I hope to reveal and better understand the interconnection(s) that exist between the various modalities within a given text. Once this process is complete, the resulting document provides the foundation for deeper metanalysis³³.

As mentioned above, my initial analysis of each modality will be done in isolation from the other modes. This initial analysis will help me to determine what is being communicated by the mode in its singular form, thereby establishing a baseline for that modality of what it is communicating. This will be an important consideration when the modalities are combined during the metanalysis. During the metanalysis I will determine if and/or how the modalities present may/may not be interacting with each other, and in doing so, what, if any, impact this

³² Picture a page that contains six panels (2x3) of illustration. Data of each mode will be placed with data from the same panel (e.g., If the modes of image, text, and layout have been noted, and then all three will be placed together.

³³ Please see Appendix B for a list of the steps involved in the analysis component of MLA.

process of cross-modal layering has on my understanding as a reader. My initial notes will be included in the metanalysis column on the Metanalysis field notes sheet (refer to Table 3).

<i>Panel #</i>	<i>Image</i>	<i>Description from previous data sheet</i>	<i>Metanalysis of how the various modes interact (if they do) and whether this aids or hinders meaning making.</i>
	<i>Text: Font choice</i>	<i>Description from previous data sheet</i>	

Table 3 Sample of Initial Metanalysis Notes

Conclusion

In this chapter I outlined the foundations of Multimodal Interaction Analysis as a potential methodology to use in this dissertation. Additionally, I provided my reasoning why this approach is unworkable for the study of multimodal literature. Given this, I used the framework of MIA to outline a new methodological approach called Multimodal Literary Analysis. This methodology alters MIA in a way that allows for use in the study electronic multimodal literature, such as *Maus*. Lastly, I discussed how the multimodal data from *Maus* will be collected, organized, and analyzed within my new methodology.

This analysis, using the completed data sheets with the cross-modal layered elements recorded on them, will be analyzed using the theoretical lens of DRCT (discussed in chapter 4). As a reader, I will consider how, or if, my understanding changes with the addition of each mode using the framework of DRCT. As stated earlier, the metanalysis of the data collected will be analyzed and will reflect my understanding, as a reader, of how *Maus* addresses my research questions, which are:

- Do the digital tools used to create and read digital literature challenge and/or alter our understanding of how narratives are composed, but also understood? And if so, how?

- How does the use of multiple modes of communication employed within these texts work together, or against each other, to create within the reader/writer layers of meaning by helping to create personal connections that both complicate and clarify the text at hand?

The resulting data gathered will be analyzed in two ways. First, my initial analysis of each mode identified will utilize close reading as a way to carefully examine each mode to determine the ways in which meaning is being made. A key element of this technique is the recognition that readers have both life and other reading experiences that shape and inform their understanding (Eisner, 2008b, pp. 57, 69).

Once the initial analysis of each mode is completed, the resulting data will be combined or layered into a metanalysis set of field notes (see Appendix I). Using this process, I will complete my analysis and draw my conclusions to determine if the interaction of the cross-layered modalities contributes or detracts from my ability to create meaning and understanding from the narrative. The metanalysis of the combined four selected modes will follow a similar process to the one used to analyze each mode; however, this metanalysis will employ Digital Radical Change Theory (DRCT), which is discussed in the following chapter as the theoretical lens for my analysis. This, as is explained in the next chapter, is to better consider the synergy that I believe exists between multiple modes working together to create deeper meaning.

CHAPTER 4: THEORY

Radical Change Theory Framework

Eliza Dresang developed Radical Change Theory (RCT) to provide her with the framework she needed to examine new multimodal, or as she termed it, digital trends that were beginning to appear in various innovative print works within children's literature. Dresang suggested that these trends reflected changes in society in which we "daily become more interactive and connected through digital network[s]" (1999, p. 3). This increased exposure to multimedia content across devices and platforms led Dresang to see multimodality as a means of meeting children and teens on their own terms and as a method to speak to their evolving literacy practices (2008). Dresang believed that the multimodal aspects of these works not only reflected the realities of the digital age that young people were growing up in, but were crucial if authors were going to be able to convey complex ideas and experiences in more dynamic and engaging ways (Dresang & Kotrla, 2009; 2008; Dresang & McClelland, 1999). By incorporating these elements, authors were able to craft children's literature that was more reflective of contemporary realities, and better suited to meet the needs and literary practices of the readers in this digital generation.

As a result, RCT focused primarily on what Dresang termed digital design³⁴. With digital design, "the line between words and pictures blurs. They work together in a unique and highly sophisticated fashion. They are so interrelated that the reader sometimes cannot distinguish one from another" (Dresang, 1999, p. 90). Dresang extends this point further by noting that it is not just the combination of text and images that are important to the meaning making process. One must also consider "the organization of the words and pictures on the page" (1999, p. 105) and

³⁴ Digital Design "refers to the presentation of pictures and text in a juxtaposition that requires ... [a] hypertextual approach to thinking and reading" (Dresang, 1999, p. 105)

the possible ways that a reader may interact with or navigate the content. These narrative elements are not insignificant in their hope to create “a unique - and [in] some aspects - synergistic static reading experience” where the sum “of [the] components of text is greater than the individual parts” (Dresang & Kotrla, 2009, p. 94)(Dresang & Kotrla, 2009, p. 94).

RCT maps how the digital age transformed youth literature and learning by connecting three observed changes to three core principles. The three observed changes are summarized below (Dresang, 1999, p. 17):

- Changing Forms and Formats: This includes the use of nonlinear narratives, interactive formats, and innovative visual elements in children's books. Examples for this include hypertext-like links, shifting perspectives, and experimental page design.
- Changing Perspectives: RCT argues that a key change was the increased representation and portrayal of diverse experiences, marginalized voices, and unconventional points of view that challenged more traditional, limited representations.
- Changing Boundaries: This aspect looks at how contemporary children's books have expanded the boundaries of acceptable content, subject matter, and behavior depicted. As a result, topics once deemed unsuitable or taboo for young readers are now being openly explored.

Each of these three observed changes were connected by Dresang to RCT’s three core principles. These principles are interactivity, connectivity, and access (Dresang, 1999, pp. 12-13) and are summarized as follows:

- *Interactivity* is characterized by dynamic, user initiated, nonlinear reading experiences. Interactivity, within print, refers to multiple plot paths and narratives that demand more interaction from the reader.

- *Connectivity* is characterized by the connections that are prompted by the changing forms/formats that Dresang observed, and the expanded associations and connections readers make for themselves. It also refers to the increased sense of community that these new books bring – due to readers wanting to share the story, and their understanding of it, with other readers. The shared experiences provide readers with the multiple perspectives and diverse viewpoints that other people provide.
- *Access* refers to the breaking of long-standing barriers in literature for youth – barriers that block off certain topics, certain kinds of characters, certain styles of language. Access, within print, refers to the increased presence of previous taboo topics and more diverse representations of people and cultures.

As we can see, the three observed changes closely aligned with RCTs three core principles.

It is important to note that Dresang did recognize the importance of multimodality and multimodal elements contained within these digitally influenced works as an essential element, but this was not a primary concern of her research. Despite the opportunity to extend her work³⁵, Dresang opted not to expand RCT beyond printed texts that were influenced by digital design. This dissertation seeks to modify and further develop RCT to create a tool to examine digital literature, and how its use of multimodal elements impacts readers and their ability to create meaning.

Radical Change Theory Shortfalls

Suzanne Choo emphasizes the importance of multimodality in the digital world when she wrote that, “it is rare to find the front page of a newspaper consisting of only words or only

³⁵ This was despite the emergence of children's literature that was not just influenced by the digital world but was part of it (including the publication of works that were available solely online or required technology to access).

images, but rather a combination of both. Furthermore, if one were to read the news from the internet, one would probably find that the information is presented through various combinations of words, images, sound, and video” because “information is no longer conveyed through one single mode” (Choo, 2010a, p. 168) but rather through many. As has been noted above, the emergence of computers, tablets, cell phones, and similar devices requires us to acknowledge “that language is only partially [responsible for meaning], and that many modes are involved in meaning making” (Albers & Harste, 2007, p. 11).

Despite this acknowledgment, there has been little, if any, research that has sought to examine how “digital compositions *weave* words and context and images [together]: They are exercises in *ordered complexity*—and complex in some different ways than print precisely because they include more kinds of *threads*” (Yancey, 2004, p. 95, emphasis in original). This is because, as Yancey points out, “We don’t have a final definition of many of these texts—and perhaps we never will... [because] they aren’t stable yet, in the way that a novel or a poem is” (ibid). Perhaps it is for this reason that Dresang opted not to expand RCT. Whatever her reasoning, while RCT provides a solid theoretical lens to examine children’s literature influenced by digital design, it is not sufficient to examine literature that exists in digital form.

Introduction to Digital Radical Change Theory

There have been studies (Alexander, 2008; Duncum, 2004; Hodgson, 2009; Kress & vanLeeuwen., 2006; Nikolajeva & Scott, 2001; Poyas & Eilam, 2012; Rudd, 2003; Thomas, 2011; Wysocki, 2003) that have sought to examine how visual images work in conjunction with text to communicate meaning, disrupt a reader's understanding of a certain text when juxtaposed with an arbitrarily selected image, or how to read a visual in order to decipher the meaning. However, there have been no studies that have sought to examine how, or if, a reader’s

understanding of a text is complicated and/or expanded when one or more additional modes are layered/incorporated into the narrative. By updating and modifying RCT, I hope to create an effective tool for examining digital or electronic multimodal literature. This updated version of Radical Change Theory, or as it will be referred to throughout the remainder of this dissertation, Digital Radical Change Theory or DRCT.

Specifically, I will seek to answer the “two basic problems [of multimodality]: first the problem of compositionality: What, specifically, does each of the individual modes contribute to the overall meaning of a discourse and how do they interact? The problem of compositionality lies at the center of previous multimodal research” (Bucher, 2017, p. 92). Bucher is referring to two basic assumptions that many make as it relates to multimodality, which is “that the whole of [a] multimodal ensemble is more than the sum of its parts. And second, the *problem of reception*, which is more or less the mirror image of the first: how do recipients integrate the different modes and acquire a coherent understanding of the multimodal discourse” (ibid). Additionally, I would point out that Bucher’s two basic problems of multimodality are both reflected by my research questions.

As I mentioned earlier, Roswell and Pahl (2011) suggest that the concept of multimodality “is and was groundbreaking because it opened up communicative events beyond the sole gaze of the written word to extend to other modalities” (p. 176). By using culturally accepted semiotic tools, each mode can be read and understood using their own unique “grammar” (Jewitt, 2006; Kress & vanLeeuwen., 2006). Additionally, each modality possesses multiple methods or conventions to communicate meaning. Recalling my earlier discussion of this concept, I referenced how color can be used symbolically to convey various ideas (e.g., yellow = illness or cowardice), or can also be used to add visual “weight” thus creating a focal

point or helping to establish a specific mood. The inclusion of multimodal elements reflects the reality that “language and other modes of meaning are ... constantly being remade” to reflect societal and cultural concepts (Cazden et al., 1996, p. 64). Doing so requires readers to integrate meaning derived from information being received through multiple modalities at any given time (Pleyer & Schneider, 2014).

To accomplish this, we must first modify our understanding of both the three observations and the three primary principles of Dresang’s original theory. The observations will be combined with their respective core principles and modified to reflect the inclusion of e-literature. These concepts, as they will be defined in this study, are as follows:

- **Interactivity:** This relates to the format used by the narrative to tell the story. A digital narrative may include the use of nonlinear narratives, interactive elements, hyperlinks, visual and sound elements, shifting perspectives, etc. It is important to note that, as with any digital activity or experience online, the code within the application itself encourages or limits the type of interactivity available to the reader. Specifically, interactivity includes actual hypertext links³⁶ and other multimodal aspects that engage the reader. The act of clicking on a link, navigating the text, and/or other required reader actions that are necessary to advance the narrative help create “a more active, involved reading” (Dresang, 1999, p. 12) that allows the reader to more fully “construe meaning and interpret the text” (ibid). Interactivity in this context also includes the necessity for readers to interpret each modal layer *and* how each layer interacts with the others to create understanding and meaning. Part of this interaction would also include the subconscious processes that incorporate the reader’s prior knowledge, cultural

³⁶ Not the hypertext like links Dresang described.

understanding, the connections made and created, etc. While these neurological functions are extremely important, they are beyond the scope of this dissertation.

- **Connectivity:** As noted above, for our purposes, these works may contain hypertext links that provide the reader with different options to alter and/or expand their understanding of the text. Unlike Dresang, for us, connectivity encompasses all the connections that a reader makes. This includes connections using hyperlinks, visual and auditory elements, the incorporation of color, movement, various text features, and other modes. Further, this principle includes any connections made by the reader that relate to, or echo, previous reading experiences, other literary works, knowledge of cultural conventions, etc. While it is important to acknowledge that our individual perspectives, experiences, sense of community, etc. influences how a reader experiences and understands a piece of digital literature, such an examination lies outside the purview of this study. which seeks to focus on the narratives themselves.
- **Access:** Within this study access refers to the ability, or inability, of a reader to read and/or engage with a digital narrative in a manner that allows them to fully experience all the multimodal elements that are present. In addition, access also includes an examination of digital literature's ability to push the boundaries of storytelling with the tools at their disposal. However, as with the connectivity and perspective above, the expansion of boundaries related to what is acceptable content, subject matter, and behavior is beyond the scope of this dissertation.

These expanded concepts form the foundation of DRCT and move us closer to the goal of creating a theory that will allow researchers to analyze how the use of various multimodal tools within digital literature can influence and alter a reader's understanding of a story. This question

of how a reader's understanding changes as additional multimodal elements are incorporated within the text is significant.

DRCT also includes consideration of the synergistic possibilities that digital multimodal literature represents. In a monomodal work of literature (such as the standard print novel) information provided by a singular mode (text) is consumed and interpreted. As a result, an individual's initial understanding and meaning of that text is created³⁷. The addition or layering of a second, or a third, etc. mode complicates the process of meaning making (see Figure 6 for a graphic representation of this process). The addition of one (or more) mode(s) to a monomodal text produces one of four possible results. They are as follows:

- Each mode present within a given text reinforces the other mode(s) that are present. In other words, each modality in the text is attempting to communicate the same idea or message as the other mode(s), thereby reinforcing the message of each.
- Each mode present within a given text is attempting to communicate similar messages, but one, or more, of the modes present offers additional information that is *not* found in the other mode(s). This results in an expansion of the reader's understanding of the text.
- Each mode present within a given text is attempting to communicate meaning to the reader. In this instance, though, *not* only does one (or more) of the mode(s) within the work offer information not found in the other(s), but that information is such that it alters the meaning the reader creates.

³⁷ The cognitive and neurobiological processes involved in the interpretation and understanding of a mode or multiple modalities is beyond the scope of this dissertation. This dissertation is interested, however, in how a reader creates meaning using their sociological, cultural, and experiential understanding of both an individual monomodal work and the synergistic process a multimodal work goes through to create meaning.

- Lastly, each mode present in the given text is attempting to convey meaning to the reader, and one (or more) of the mode(s) present contains information that is not in the other(s), *and* that information contradicts what is communicated in the other mode(s). This contradiction requires the reader to weigh the information they have, combine it with their prior knowledge, and then determine the meaning of the text based on their conclusion(s).

In each instance, the reader takes in the information from the multimodal text and recursively weighs what is offered by each mode and considers the whole of the layered amalgamation of modalities to arrive at some level of understanding and meaning. It is possible that the reader will arrive at more than one outcome due to the material potentially both confirming and extending the meaning of a given multimodal interaction. Additionally, as will be shown in the metanalysis section, cross-modal layering can result in the extension and alteration of meaning simultaneously as well. The recursive nature of this cross-modal layering process requires the reader to actively use their own experiences, the social context of the text, and the reader's understanding of the various modal grammars³⁸ at work within a given piece, etc. if they are going to move beyond the literal and make meaningful inferences and connections (Jacobs, 2007, pp. 184-185; Poyas & Eilam, 2012, p. 2; Serafini, 2011b, pp. 346-348).

Conclusion

In this chapter I outlined the basic tenets of Dresang's Radical Change Theory as a potential theoretical lens for use in this dissertation. Additionally, I provided my reasoning why Dresang's theory falls short as it relates to my study of electronic multimodal literature. Given

³⁸ For this dissertation these grammars include those related to the New London Group's Design concepts, and Kress and van Leeuwen's work relating to visual design (2000; 2006, respectively). Also included are the terms and concepts found in Appendix C and both Eisner and McCloud's writing on the grammar of comics (Eisner 2008a; McCloud, 1993).

this, I used the framework of RCT to outline my expansion of this theory to encompass digital or electronic literature. This expanded theory, entitled Digital Radical Change Theory, is altered in such a way as to provide an excellent theoretical lens to use as part of this dissertation.

CHAPTER 5: ANALYSIS

The meaning of a story can be communicated through the use of other modalities besides text and image, such as dance or music for example. Like all modes, comics have an established grammar that aids in the creation of meaning. The grammar of comics is created by employing “a series of repetitive images and recognizable symbols” (Eisner, 2008a, p. 8). Authors realize that readers likely have had “other reading experiences” (ibid) with comics, and as a result, will draw upon these experiences as they read to aid in their understanding of the text. Other elements of this grammar include how text is printed or lettered, how dialogue balloons are represented, the size of a panel, etc. Eisner argues that it is through the consistent repetition of these elements that allows this grammar to be utilized “again and again to convey similar ideas” to readers (ibid).

Additionally, there is an understood grammar when that relates to navigating and using CD-ROMs and DVDs to access programs or other material created for the computer. Voyager employed this grammar when they originally published the CD-ROM version of *Maus* for Macintosh in 1994³⁹; this contained all the material that can be found in *The Complete Maus* section of the *MetaMaus* DVD (see Figure 7). This section of the DVD contains a digital copy of the print version of the novels⁴⁰. It is also important to keep in mind that as a digital text, *Maus* is limited by the technology that existed at the time of its creation⁴¹ in 1994⁴². These limitations could impact the meaning a reader creates and their understanding of the text as a result. Further, this digital version includes, as a mode and design element, hyperlinks to information⁴³ not

³⁹ A version that worked with the Windows operating system was published later.

⁴⁰ The latest digital version of *The Complete Maus* published in 2011 does little to utilize the multimodal tools that were available at the time within the narrative itself.

⁴¹ This assertion will be further developed later in this dissertation.

⁴² The DVD used for this dissertation was released as part of *MetaMaus* in 2011. Part 2: MetaMaus of the DVD is new material. However, Part 1 is a reproduction of *The Complete Maus* that was released in the ‘90s as a CD-ROM.

⁴³ These extras include various audio and video of interviews with Vladek, video from Art’s research, trip to Auschwitz in Europe, family photographs, various historical documents, copies of research material, preliminary

available in the print version (see Figures 4 and 7), these links are self-contained and take the reader to information contained within the DVD; they do not take the reader out into the internet.

As discussed in Chapters 3 and 4 my analysis was developed using MLA as the methodology and DRCT as the theory. MLA was utilized to study the digital text of *Maus* by focusing on how different modalities (specifically text, images, layout, and interactive elements) impact the creation of meaning for readers through the process of cross-modal layering. Initially, my data was gathered, organized, and analyzed as individual modes. Once this was complete, all four field notes were compiled together to create a set of primary notes. The data from this set of field notes was then analyzed using DRCT. This meta-analysis examined how the modes interacted through the cross-modal layering process using the three main principles of DRCT (interactivity, connectivity, and access).

According to DRCT, meaning is affected by cross-modal layering that occurs within multimodal literature as two or more modes are combined. This layering of the additional mode(s) confirms, extends, alters, or contradicts⁴⁴ the other mode(s), thereby impacting how a reader may understand or assign meaning to the text that has been read. Throughout this process, readers engage in recursive interpretation, using their understanding of various modal "grammars" and their own experiences to construct meaning from the multimodal text. This, combined with Spiegelman's choice of comics as the medium to tell the story, does impact how the four selected modes are presented and function within the narrative.

My analysis of *Maus* focuses on four of the modes present within this electronic version of the novel. Specifically, this analysis will use the information contained in appendices E

sketches for the graphic novel, etc. Initial links to this material are found on the screen. How these elements work will be discussed later in this dissertation.

⁴⁴ It is possible that a reader may arrive at more than one of these outcomes at the end of the modal layering and meaning making process.

through I. This dissertation is not and should not be viewed as an exhaustive analysis of every mode contained within the text. I would also like to add that the examples of the modes referenced and offered as evidence within this chapter are not the sole examples of that modality or its variations within the pages used for analysis. They are, however, representative of how each of the modes is used throughout *Maus*.

Further, the following pages represent my analysis and understanding of how each mode creates meaning singularly, and then how that meaning can be extended or altered through the process of cross-modal layering. My conclusions are therefore not generalizable or representative of what other readers may experience. While this focused approach allows for a deep and detailed analysis of the selected section, it may not capture variations in how modes interact in other parts of the book. Future research could extend this study to analyze additional chapters or the entirety of *Maus II* to explore whether similar patterns and interactions hold across the broader narrative.

This chapter will be divided into five sections. The following four subsections will focus on one mode and will not contain references to other modes that may be present. Each of these sections will also contain examples of the gathered data for each mode (i.e., text, image, layout, and interconnectivity), and my initial analysis of how the selected mode creates and communicates meaning. The fifth section will feature a metanalysis of the combined data from the four individual modes. This data will be analyzed using DRCT as the theoretical lens.

Text

Text serves as the primary, and in many cases, the only mode used to communicate the events within a story or narrative. From books, magazines, websites, films (in the form of subtitles), advertising, and social media, to name just a few, we encounter text in every facet of

our modern life. As a modality, text is a versatile and effective method of communication. Its strengths lie in its ability to convey detailed and precise information in a clear and concise manner. In addition, its conventions are widely understood, provided the reader is literate in the alphabetic system and language being used. The need for this also represents a limitation in its ability to communicate.

Connected to this is another limitation. In order for text to communicate meaning, the reader must also possess the appropriate contextual understanding, cultural, and/or background knowledge that is necessary to grasp a given textual reference. For example, several years ago on a trip to California with their grandmother, Kay Clark, one of my daughters stated that she wanted to see the Painted Ladies in San Francisco. As grandparents are wont to do, Grandma Clark said yes. But as she explained a few years later, she understood the phrase in a very different context than that of my daughter. To my daughter the phrase “Painted Ladies” refers to Edwardian and Victorian houses and buildings that are colorfully painted in a particular neighborhood of San Francisco. My mother-in-law, using her understanding of the term—⁴⁵ — believed that my daughter wanted to drive around until they saw painted ladies while in San Francisco. In this instance, the context of how the term was being used was essential for understanding. As it relates to text as a modality, the opening lines of chapter 2 offer a few challenges for the reader. Due to the way that the text/dialogue is written it is clear that Art⁴⁶ is talking directly to the reader, and in doing so, breaks the fourth wall⁴⁷. To have a character talk

⁴⁵ Understanding can also be shaped by differences in generation/age. Given that my mother-in-law was born in 1936 it is reasonable that she both understood the phrase and drew the conclusion she did. My daughter, who was born in 2002, had never heard the phrase used as a term for prostitutes.

⁴⁶ For the remainder of this dissertation, I will use “Art” when referring to the character of Art that appears in the pages of *Maus* and use Spiegelman when referring to the individual who wrote and illustrated these works.

⁴⁷ Breaking the fourth wall occurs when a character in a book, TV show, movie, play, etc. in some way acknowledges the presence of a reader or audience. By doing this the character acknowledges that what is happening is part of a text or performance.

directly to the reader is not a common occurrence in literature, film, or theater. As a result, it is something that a reader will notice and perhaps find uncomfortable. This decision by Spiegelman to talk directly to the reader is evidenced through Art's opening dialogue where he talks about the death of Vladek, the commercial and critical success of *Maus I*, that Françoise is expecting their first child, etc. (Spiegelman, 2011, p. 201).

This dialogue also represents a second challenge for the reader. The subject matter of Art's conversation clearly tells the reader that a shift in time has occurred. This change is suggested by the change in how the text is lettered⁴⁸. Pages 201-203 are lettered using both upper and lowercase letters. The other eight (out of the eleven total) pages are lettered using only capital letters. While it is not uncommon for *Maus* to move back-and-forth between Vladek's experiences during the Holocaust and Art's experience interviewing and dealing with his father to write *Maus*, this discussion is clearly not in either time. As a result of these decisions, the reader is unable to determine several things. First, it is unclear why Art is breaking the fourth wall and talking directly to the reader. Second, it is unclear why Spiegelman decides to incorporate a third time period within the novel. Third, it is unclear when this new time is in relation to the novel's timeline⁴⁹. Without this knowledge and the reasoning for it, these first three pages⁵⁰ create a lot of confusion. As a result, the opening lines of chapter 2 do not provide a clear transition from chapter 1 in a way that makes sense.

While the reasoning and logic for the above choices are elusive, this does not mean that text as a mode does not communicate some very useful information relating to the narrative. For

⁴⁸ While an argument can be made for lettering (text) to be considered as a separate modality, for the purposes of this dissertation, it will be considered part of text.

⁴⁹ Even without access to chapter 1, this shift in time would be clear to a reader due the way the dialogue is structured and the subject matter of Art's conversation.

⁵⁰ The chapter does return to the previous two timelines of Vladek in Auschwitz and the time period of Art interviewing Vladek for *Maus I* after pages 201-203.

instance, it is during Art's monologue on these pages, that the reader learns various bits of biographical ("In May 1987 Françoise and I (Art) are expecting a baby" (Spiegelman, 2011, p. 201, panel 3)), and historical information ("Vladek started working as a tin man in Auschwitz in the spring of 1944" (ibid, Panel 2) and "between May 16, 1944, and May 24, 1944, 100,000 Hungarian Jews were gassed at Auschwitz" (ibid, Panel 3)). As is shown in Figure 8, the reader is given a few hints that perhaps Art is not dealing well ("Lately I've been feeling depressed" (ibid, panel 5)) with the success of *Maus* and that he is seeing a therapist (Spiegelman, 2011, p. 201, panel 5).

The mode of text often has difficulty effectively communicating emotions, intentions, attitude, etc. as a singular mode. This is in part due to the static nature of text. For example, if I start the story with the phrase, "I am feeling great." Can you be certain of how I really am feeling? Probably not. Without any additional modal information such as tone of voice, volume, facial expressions, pronunciation of the word, etc. or other modes/contextual clues there simply exist too many possibilities as to what this response could mean. The reader experiences this in the last line in Figure 8, when Art says, "Lately I've been feeling depressed." Using only the mode of text, it is impossible to determine how the reader should take Art's statement.

The text in Figure 8 also demonstrates a way text can be used to provide the reader with contextual clues as to how something should be understood or read. In Figure 8, Art tells the reader that he has had offers to turn *Maus* into a film and what year his mother committed suicide. Within the speech balloon Art says, "I don't wanna," and "She left no note." Both statements are bracketed by parentheses. This indicates to the reader that these words are asides that address the audience (or the author himself) and not meant to be read as part of Art's dialogue. Both responses also address unasked questions that the reader may have. Upon reading

that Art has received various offers for the film rights, it would be natural for the reader to wonder if there was a film, or if one was being made. The first aside is Art's answer to a question that he believes the reader would ask if they were able to.

The second aside, I believe, serves two purposes. First, it is an answer to a question that Art has probably been asked many times about his mother's death. It is a commonly held belief that most people who commit suicide leave a note. Despite the inaccuracy of this belief, it is a question often asked⁵¹ in hushed tones. The second possibility is that Art is talking to himself. For those left behind after a suicide, it is impossible to escape the question of why. Not being able to answer this leaves survivors⁵² angry. Art's statement here is a response to that feeling. It serves as both a reminder of this fact and, perhaps, an admonishment of his mother.

An insert panel is a small panel inside other panels and can serve a similar purpose as an aside. Like an aside, Spiegelman uses these in *Maus* to above by anticipating and answering anticipated questions from the reader. Three of these inserts (see Figures 9-11) function in a similar manner to asides. The other eight enable Art to have two conversations at once. In these insert panels, Art can provide additional information or commentary to the reader, while at the same time engaging in a conversation with another character.

Text can also aid in communicating meaning to the reader depending on how it is written or printed. The eight panels on page 202 provide several excellent examples of this concept. For example, in Figure 12, the reader sees Art's answer to a reporter's question. The I-I is a visual representation of Art's hesitation as he struggles to answer due to nervousness. This sense of nervousness is further developed in Figure 12 with the beginning of the next sentence, "I mean, I

⁵¹ This is based on my own experience of knowing people who have taken their own lives and the types of conversation that surrounded these events.

⁵² The trauma of those left behind leaves them just as devastated and damaged as if they were in an accident or had battled the disease. And just like in those cases, they may recover but are never the same.

wasn't...". As the group interview continues, Art's anxiety only intensifies. Art's anxiety is also made apparent through his repetition of words/phrases (see Figure 13).

Lettering can also be used to offer the reader clues as to how a word or sentence should sound (be read). Lettering aids in conveying this to the reader using ellipses between phrases or individual words to indicate breaks or pauses in his speech as he searches for his words. A similar tool can also be found in Figure 12 when Art says, "I just wanted –" before being interrupted by a TV reporter. The double dash⁵³ at the end provides the needed textual direction to the reader as to how this should be read (with the German reporter interrupting Art as he says this line). Another common device to provide readers with similar clues is the use of all capital letters.

This grammatical convention began in other forms of printed text (newspapers, novels, etc.) and was later adopted by comics. It has since been adopted by writers who post online, email, text, or communicate digitally in other ways. Contextually, the use of all capital letters to write a word is a clue for the reader to add extra emphasis to that word. All capital letters may also indicate an increase in volume as well⁵⁴. For instance, Art's response to a reporter's question in Figure 13 features the word "MOMMY" in all capital letters. The word being written in all capital letters indicates that the word "MOMMY" should be read or spoken with extra emphasis and while the fact that the word is being written much bolder (darker) indicates an increase in volume as the word is read or spoken⁵⁵.

⁵³ See Appendix C.

⁵⁴ Other factors are used to indicate the volume level that a word or person is spoken at. These will be discussed later in this section.

⁵⁵ This is unlike the word "CONVINCE" in Figure 12. Here the use of all capital letters indicates emphasis. The fact that the word Volume is not bold indicates that the reader should add extra emphasis, but at most a slight increase in volume. This is only done to add to the emphasis placed on the word.

The use of all capital letters not only indicates words that a character emphasizes, but it can also provide an indication of a speaker's emotional state if the technique is used repeatedly in a sentence or paragraph. For example, capital letters are used to indicate Art's growing frustration with the media's questions as seen in Figure 14⁵⁶. This assertion is supported by both uses of the word "EVERYONE" and the word "FOREVER" being written in all capital letters. Additionally, the first "EVERYONE" is slightly darker than the words preceding it. The second "EVERYONE" is darker still. This indicates that not only is Art emphasizing⁵⁷ this word both times, but also, he is saying it at a greater volume as well.

Volume is also demonstrated textually through how big or small the text is shown. The larger a text is, in comparison to the other text around it, indicates greater volume. This concept is demonstrated in the previous Figure and in Figures 15-18. In Figure 15, Art is finally overwhelmed by his frustration with the reporters and lets out a scream. An increase or decrease in size to indicate a volume level can be further enhanced with the use of special-effects lettering (see Appendix D) which, as is shown in Figures 17 and 18, draws attention to the text and reinforces that the sound being made is different than normal speech. Figure 18, due to its size, should be read as Vladek's moaning decreasing in volume. Both Figures, along with Figure 15, are also examples of onomatopoeia and aid bringing the scene to life by allowing the reader to "hear" what is happening.

Lettering of the text, Eisner writes, should be "treated 'graphically' and in service of story" and should "function as an extension of the imagery" (2008a, p. 2). Examples of text being used in this manner can be seen in Figures 15, 17-18. By using lettering in this manner, it

⁵⁶ It is understood that the use of punctuation, in particular end punctuation, also plays a significant role in providing the reader with contextual clues as it relates to the characters emotions, volume, speech patterns, etc.

⁵⁷ Other examples of what is being emphasized can be found in Figures 14 and 16 with only select words being lettered in all capital letters.

becomes an additional text-based method that can be used to complicate a reader's understanding of the narrative. For example, throughout the novel, the letter "s" is written to resemble the "S" used by the Nazi SS (see Figures 19-21). This intentional decision by Spiegelman to letter "S"⁵⁸ in this manner suggests that the impact on Vladek and other Holocaust survivors not only plays a role in how they see and interact with the world, but their trauma has also colored the lives of their offspring and others that they befriended since the war's end.

Image

As part of my analysis of images, it is important to recognize that within any interaction, individuals pay various levels of attention and/or awareness. Norris recognized this when she wrote, "A participant in interaction can engage in several simultaneous high-level actions [with] differing levels of awareness/attention" (Norris, 2004, p. 95). To aid my analysis of image, I need to introduce three concepts – foreground, mid ground, and background. These concepts are meant to help "distinguish (the) three levels of simultaneous awareness of a person in interaction. (Further,) these notions are merely of a heuristic nature; they are not distinct points of attention/awareness and are simply functioning in an explanatory sense" (Norris, 2004, p. 97). The following definitions combine the ones commonly used to discuss art and the definition of these concepts created by Norris. The definitions that follow will be used for the remainder of this dissertation.

- Foreground – the part in a scene or artwork that seems closest to you. Objects appear larger and more detailed. As a result of this, elements in the foreground demand the most attention of the reader and are the elements that the reader reacts to the most.

⁵⁸ The choice by Spiegelman to letter the "S" in this manner is one that appears almost entirely throughout *Maus*. However, there are examples the letter "S" being written in the same style as the rest of the text. Using only the modality of text, it is not possible to determine a pattern in why one version is used in one instance and the other version in the next instance.

- Mid-ground (or Middle Ground) – the part of a composition that appears between the foreground and background. Elements that a reader, to some degree, focuses on and/or reacts to.
- Background – the area within a composition that appears further away from the viewer; objects appear smaller and with less detail. These elements may be noticed but generally do not demand a great deal of attention. (“Glossary of Art Terms”; Norris, 2004, p. 97) An understanding of these terms is essential as meaning can be, at least partially, impacted by this concept. For example, items located in the foreground are assumed to carry greater significance than an item in the background.

Before continuing my discussion of the use of image as a modality in *Maus*, it is important to acknowledge Spiegelman’s decision to use animals as both metaphor and allegory throughout *Maus I and II* ⁵⁹. Before a reader even opens the novel, Spiegelman’s intentions are made clear with the title *Maus* (the German word for mouse). This decision to use animals allows the reader to easily make the connection that the Jews (mice) are the hunted, and the Nazis (cats) are the hunters. Further, it is an effective means to create an allegory that subtly references the centuries long history of German and European anti-Semitism, in which Jews were often called parasites, vermin, and other such dehumanizing terms. Hitler and the Nazi party/government drew upon this shared history in their propaganda efforts to further malign and dehumanize Jews. As a result, the print and film propaganda produced by the Nazi regime echoed, if not explicitly employed, these tropes. By drawing upon other knowledge and experiences⁶⁰, as a reader, I would assert that Spiegelman’s use of animals in this manner provides a clear metaphor that reflects both Nazi and historical anti-Semitic beliefs. Finally, I would also argue that the use of

⁵⁹ Spiegelman discusses this in Book II, Chapter 1 – Mauschwitz and in the Why Mice? chapter of *MetaMaus*.

⁶⁰ This falls under the concept of connectivity in DRCT.

animals in this manner also reflects the efforts by the Nazis to implement the final solution and bring about the extermination of all Jews.

However, there are occasions, such as the beginning of *Maus*, when Spiegelman deviates slightly from his decision to use animals. In these sections of the novels, the reader sees characters depicted as human beings wearing various animal masks (see Figures 22-25). For example, in Figure 25 Art's mask does not fully cover his face with 5 o'clock shadow clearly visible. Additionally, it is clear to the reader that the mask is tied on. The same is true for other characters that appear in pages 202 and 203 in the microanalysis section. Again, using only image as a mode, it is not clear as to what Spiegelman is attempting to communicate, since the reader can use only image to draw some conclusions related to the emotional state of a given character. For example, in Figure 26, the reader sees Art sitting with his head down resting on his crossed arms. Art's chair and desk are surrounded by a mass of intertwined, nude, and emaciated corpses with flies circling⁶¹. The bodies dominate the foreground of this panel, with Art and his desk at mid-ground. In the background, on the right side of the panel we see through a window the silhouette of a guard tower. It appears as if Art, his chair, and table are at least sitting partially on the bodies surrounding his desk. This image suggests to the reader the impact that Art's immersion into the atrocities of the Holocaust, through his interviews with his father, is taking an emotional, if not physical, toll upon him. The reader is forced to question Art's mental health due to his slumped posture and the seemingly real presence of the bodies, flies, and guard tower that fill the scene. The toll on Art is also apparent in Figure 25 by the presence of bags under Art's eyes (a line runs from the eye down suggesting lack of sleep, which is a sign of depression).

⁶¹ Within the panel a sense of movement is created in the movement of the fly between Art and his dialogue balloon using a motion line.

Taken together it is clear that the very real horrors of the Holocaust and Vladek's experiences are having a negative impact on Art.

Besides his body language, Art communicates his emotional state using facial expressions. Although the characters are clearly wearing masks, these masks are not static in appearance, but expressive and demonstrate the same emotions as a human face. This allows the reader to deduce the emotional state of the characters. For example, the reporter's and the pig's eyebrows are arched down over their eyes implying a feeling of hostility or malevolence. Other examples of emotion being expressed include Vladek's eyes in Figure 27. Unlike the pig, Vladek's eyebrows are arched above his eye showing shock or surprise. Other facial expressions communicate the emotional state of a character include smiles (Figures 22 and 28) and a smirk of disbelief (Figure 27).

As discussed previously, the grammar of comics also allows the modality of images to communicate emotions through the use of emotional state markers (see Appendix C). Examples of this technique include Figure 29 (which also includes the presence of a question mark); as well as Figure 30⁶² and Figure 31 where Art is screaming. This technique can also be used to communicate additional information besides emotion. In Figure 26 the three lines above the boot being held up highlight its state of disrepair. Later, in Figure 27 the halo effect is utilized around the boot to draw attention to it, this time to show the quality of the repair.

Image is also an immensely powerful method to communicate the horror of a scene in a way that would not be possible using only text. Even if such a scene could be expressed using words, the length required would potentially disrupt the rhythm of the narrative and bog down the story. Image on the other hand is extremely effective as we see in Figure 32. The torsos

⁶² While not traditional emotional state lines, I believe the use of negative space to create a halo of sorts around Vladek's head achieves the same effect.

framed by the white flame with eyes opened wide in terror and pain are drawn as round white circles with small black dots in the center. The mouths of the victims screaming communicates powerfully the horror of the scene.

It is also through the use of image that Spiegelman is able to clearly give the reader a sense of the physical world that the characters occupy. Image is able to visually represent maps, rooms, hiding places, etc., that would be awkward, if not impossible, to describe in words alone. The use of these diagrams could be argued to be an effort by Spiegelman to “achieve authenticity by showing the reader exactly what is being portrayed rather than just a description of it” (Zuckerman, Spring 2008, p. 65). The inclusion of the map shown in Figure 33 and its use as an image provides the reader with a clear idea of the proximity the two what I assume are two concentration camps⁶³ to each other. Using only the modality of image, it is not possible to know the name(s) of the camp or their location. Additionally, I can get a general sense of the layout of each and surmise that a train was used to transport prisoners to the camps⁶⁴ (shown inside the red circle in Figure 33). Other geographical features represented on the map include roads, train tracks, and a river. The map image suggests the horror of the camps with the presence of two large plumes of smoke coming from what I assume is the crematorium that is located in the largest of the two camps.

Similarly, image is effective in helping the reader to draw upon their knowledge and experiences from the “real” world. It does this by using various techniques to create a sense of the physicality of the item(s) or people being portrayed. One use of this technique is Figure 34 which indicates a quick turn of Françoise head using a motion line upon hearing Vladek’s loud

⁶³ The map is a graphic representation of the two camps that comprised the Auschwitz-Birkenau complex and the surrounding area.

⁶⁴ Using image alone it is not possible to determine which the name of neither the camps or the name of the town/area that is being depicted.

moaning. Within the same panel, the glow from Art's lighter is used to create a greater sense of the setting. The crosshatching on the building walls behind them suggests that at a minimum the house is in deep shadow and not fully lit. The darkness of the scene is illustrated by both Françoise and Art being drawn mostly in black with only the lighter's flame illuminating parts of their features and clothing.

Additionally, there is a halo or glow effect around the lighter's flame, thus suggesting that this is the source of the light within the scene. This is also supported by images 35 and 36, in which the light has been extinguished. Each of these panels show Art, Françoise, and the physical environment now in very dark shadow (see Figure 34). Finally, Spiegelman's portrayal of the cloud of insecticide that comes from the insect repellent can, and the resulting dead or dying bugs (shown on the floorboards of the porch or falling from the sky) in both Figures 35 and 36 further enhance the reality of these images.

Layout

Layout, I would argue should be considered a separate modality because, at its core, it is a visual language that utilizes elements like text, images, and whitespace to effectively communicate information and meaning to an audience, going beyond words to create a compelling narrative through visual arrangement alone; layout acts as a powerful tool to convey complex ideas and emotions without relying solely on written or visual elements (*What is Visual Representation?*; Yudhanto et al., 2023). I believe that layout is more than an organizational method for other modalities because it uses the principles of design to establish a visual hierarchy through the strategic placement and positioning of various textual and visual elements, thereby drawing the reader or viewer's attention to the most important elements of a piece by creating context (ibid).

Layout, as envisioned for this dissertation, is a multifaceted concept that includes such formal features as “the shape and arrangement of panels[, text,] and speech or thought balloons” (Forceville et al., 2014, p. 485) in a way that “emphasize[s] the rhythm of the narrative, [by] including the alteration of framed and non-framed images, multiple panels, bleeding, and wordless spreads. All these elements are significant for the aesthetic experience of the narrative” (Al-Yaqout & Nikolajva, 2015, pp. 4-5). Additionally, the size of an image, in relation to the other elements on the page is also an important consideration during the creation of meaning as well. Layout requires “a substantial degree of reader participation for narrative interpretation, even fostering a kind of interpretive ‘intimacy’” with both text and illustrations. Chute argues that this is, in part, because the act of filling in the gaps that exist between panels⁶⁵ and the non-synchronous nature of comics work to create “the often-distinctive back-and-forth of reading and looking for meaning” (452) that are a hallmark of this medium.

The nature of this type of reading requires the reader to slow down and be more reflective, and as a result creates a more intimate experience (Chute, 2008, p. 460). For example, in Figure 37 the murder that is committed is “*aided and abetted by a silent accomplice, an equal partner in crime known as the reader*” (McCloud, 1993, p. 68, emphasis in original) who must supply the narrative of what happened between the first frame and the second. As McCloud explains, while the author/artist drew the image of the man with the ax, it is the reader who lets “it *drop* or decide[s] how *hard* the blow [is] or *who* screamed or *why*” (ibid, emphasis in the original). Layout is a key tool that helps guide the reader in their thinking as they read and create meaning for themselves.

⁶⁵ As seen in Figure 37 the space occupied by the gutter (see Appendix C) represents the passage of time. It is up to the reader to fill in what happens within the story during the passage of time that the gutter represents. The larger the gutter between the two frames, the more time is thought to have passed. Due to the active participation of the reader in creating the events that transpire in this emptiness, the reader becomes a co-creator of the narrative.

My analysis of the layout within *Maus* begins with the use of special effects text⁶⁶. The words “Time flies...” marks the beginning of Chapter 2. The placement of this text is done in a way that separates it from all other texts and images that occupy the page it is on. Spiegelman’s decision to place the text in Figure 38 above the frames of panels 1 and 2 (see Appendix C) and outside the perimeter of the entire page (see Appendix J, page 201) imbues them with additional meaning. Throughout the entirety of *Maus I and II* there are only 15 similar examples of text being presented in this manner. The layout and rarity of these headings is meant to signal to the reader that the material below represents a shift in time and/or setting within the narrative. This method acts as a signpost to the reader that is there to prevent them from getting lost along the narrative path.

Layout of an image on a particular page can also help communicate to the reader its emotional content. By designing how the image and text will be presented the writer aids the reader both understand and experience the emotions of a scene. In Figure 31, the reader sees Art surrounded by reporters and others. The image creates the feeling of a group of predators surrounding their prey as they close in for the kill. All eight images on page 202 contribute to this feeling, as each shows the circle slowly closing, and Art shrinking in size seemingly to disappear into the background. By Figure 31, the reader senses and shares the anxiety and stress Art is experiencing. The page ends with Art crying aloud as his efforts to fold into himself fail. The layout on pages 201-203 all lead the reader to question Art’s perception of reality and mental well-being (see also Figure 26).

⁶⁶ I have chosen to include these examples of text in the layout field notes due to their being examples of special effects lettering, their size, use of lettering or typography that result in text serving a more graphical purpose, and/or in a way that helps to maintain or indicate the rhythm of the narrative.

One method that layout uses to effectively emphasize the main message or idea that an image is trying to communicate is the creation of a focal point. For example, Figure 26 is the focal point of the page, due to its size and sharp contrast that creates graphic weight. The imagery of a slumped Art across his desk, surrounded by a large pile of corpses with flies buzzing and filling the air, a guard tower and fence looming, combine to create a disturbing tableau. These elements form a strong focal point that a reader is immediately drawn into.

Spiegelman relies on layout to communicate the physical geography of Auschwitz and the surrounding area in a way that words could not (see Figure 32). The visual description of maps, rooms, hiding places, etc. would be awkward, if not impossible, to describe in words alone. The same can be said for Figure 39, which effectively uses layout to create an easily understandable visual for the reader to grasp Vladek's description of how to repair a shoe. Additionally, this image is also another example of using layout to create a focal point. The panel's content, scale (it occupies 1/3 of the page), and sharp contrast⁶⁷ all combine to create a strong focal point and visual that draws the reader's eye and holds their attention.

In Figures 40 and 41, layout is successful in giving the reader a sense of both the physical condition and the feel of the paper⁶⁸ used by Vladek to write a note. The erratic and crumpled look of the edges in the two images implies that the paper is used or has been scavenged in some way. While it is not possible to determine through the modality of layout alone who the notes are for or why they are being written, I would posit that both are of some importance to Vladek. This is supported by the fact that the physical representation of the notes dominates the frames in

⁶⁷ This contrast is created using negative or white space that dominates the frame is a whole.

⁶⁸ Using only the mode of layout it is possible to deduce that the text frame within these Figures 40 and 41 represent crumpled paper due to the presence of Vladek leaning over a table with a dark line to represent him holding a pencil and writing a note of some sort in Figure 40. The fact that Figure 40 uses a similar structure to represent the text box, would imply that it is also paper that is being used to write a note.

which they appear in both scale and contrast. In addition, both representations not only extend beyond the frames of the panels in which they are in but also overlap part of the panels located above them.

Finally, the modality of layout is used to help the reader experience the physical environment that the characters in the story are occupying. Page 234⁶⁹ is an effective example of this. The decision to present these frames using a darker tonal quality (by using crosshatching, heavy blacks, and other shading techniques) contributes to the illusion that the scene is occurring during late evening. Further, Figures 17 and 18 help to develop the scene using layout—in particular special-effects lettering—to illustrate the various volume levels of Vladek's nightmare induced moan through both the size of the lettering and the fact that both examples extend beyond the frame.

The same can be said for Figure 42 in which the sound of the slap also extends outside of the frame. The panels on page 234 also include within their layout representations of mosquitoes or other bugs buzzing and biting Art and Françoise as they sit and talk. Even the use of insect repellent, its sound, and the cloud created by its spraying are communicated through how it is shown on the page. The layout within the electronic version offered in *MetaMaus* features, next to each digitally reproduced page, various icons/hyperlinks. These links, when clicked on, take the reader to various multimodal materials related in some way to the creation of the page that the icons are next to. The interactivity of hypertext is discussed in the next section of this dissertation.

⁶⁹ Please refer to Figures 35 and 36.

Interactivity

Interactivity, as it relates to *Maus*, refers to the use by the reader of various hypertext links⁷⁰ present within the *MetaMaus* DVD. Each of these links “extend the notion of the text ... by including visual information, sound, animation, and other forms of data” (Landow, 1992, p. 4) that provide additional material that can complicate, extend, expand, or alter the narrative being told. As it existed in the ‘90s and ‘00s, hypertextual links within an electronic text, if clicked on by the reader, would trigger the execution of a predetermined command. If the text lived online, then the reader might be transported to a specific webpage that may provide a definition, additional information, and/or continue the story. Within the time period being discussed in this dissertation, it was far more likely that the electronic text came in the form of a CD-ROM, as is the case with *Maus*. The act of clicking on a link only transports the reader to material that is contained within this particular DVD⁷¹.

All hyperlinks, whether they link to internal, as in *Maus*, or external material, serve creative and/or utilitarian purposes, such as navigation or narrative advancement. However, the presence of hyperlinks could also disrupt the flow of the story and thereby take the reader out of the narrative. There are, I believe, varying degrees of disruption. A hyperlink that must be clicked to move forward in the story is no more disruptive than the turning of a page in a physical book. Neither is a link that provides a quick definition of an unfamiliar word or opens a picture of one of the characters being discussed. These actions, if they are minimally intrusive and do not take an extended period to complete, are not a significant impediment to the reader or their ability to

⁷⁰ For the purposes of this dissertation, the terms interactivity and hyperlink, are interchangeable. In the case of *Maus* these links provide the only way for the reader to interact with and move forward in the story.

⁷¹ A few possibilities connected with this action include moving the reader to a certain point within the same document, causing a pop-up box to appear that provides various choices, and/or opening materials such as photographs, video, research material, audio, etc.

create meaning from the story. Indeed, these links and their use by the reader could aid in the synergizing and layering of the material, thereby deepening understanding.

The digital version of *Maus* is a prime example of what Landow called, “the simplest, most limited form [of hypertext that] ... preserves the linear text with its order and fixity and then appends various kinds of text to it” (2007, p. 30). *Maus*, like similar electronic literary efforts of this time period, represented a “transitional form, most useful for making print work searchable and easily read – but not very hypertextual, since they do not take advantage of the fundamental qualities of the medium” (Landow, 2007, p. 31). The transitional nature of *Maus* is apparent upon loading and opening the DVD. The opening screen, as seen in Figure 4, presents the reader with 16 initial hyperlinked choices⁷². Waiting within each of these 16 initial choices (see Figure 4), lay other hyperlinks that transport the reader to subareas of the DVD that contain video, audio, photographs, historical documents, early sketches, and/or page drafts of the graphic novel. Two of these choices, Making of *Maus*. An Introduction and Art on Art, are beyond the scope of this dissertation because while they both relate to *Maus*, neither of these areas contain any method to access any part of novels using hyperlinks; nor is it possible to access these two areas through the use of any hyperlinks contained in the digital versions of the novels.

By clicking on any one of the 14 links (the various illustrations that appear at the beginning of each chapter) the reader is transported to a screen that features the first page of the chapter they selected. This screen also contains additional links in a column located to the left of the page (see Figure 43) that can take the reader to additional content related to that page of the novel. These materials include information related to the creative process, research, and other material used in that page’s creation. It should be noted though that not all these links are

⁷² In addition to all the material contained in both novels, it also includes links to a section called Making *Maus*. An Introduction and another called Art on Art.

multimodal in themselves (for example, text is monomodal), their connection to a page of the graphic novel makes them multimodal due to their ability to engage with the reader, provide additional information, that then influences their understanding of that particular section of the story.

Hyperlinks, like those in *Maus*, represent two possibilities: 1) that the new destination will help them to gain some sort of knowledge or understanding that will have an impact on their meaning making, or 2) the link will interfere with the reader's ability to recall what they have previously read and as a result they may struggle to pick up the thread of the story from where they left off. Hyperlinks, like those used in *Maus*, can and do take the reader out of the narrative in a manner that tends to disrupt rather than complement. Each of the six possibilities (see Figure 44) are linked to various materials that one can access. Within these six areas lay one or more pieces of information that relate to the page being read. Figure 45, which shows the subarea of Page Drafts contains more than one artifact or document that was used to shape or inform the creation of page 201. This can be seen in the drop-down menu⁷³ at the top of the pop-up window shown. Each additional item the reader clicks on is, at a minimum, a small disruption to the flow of the narrative.

Hyperlinks also have the potential to take the reader out into the wild of the internet to visit various pages or items. While this is not the case in *Maus*, this possibility also presents additional risk for further disruption. A reader could easily consume the hyperlink's intended material, but then click on a link found on this outside page and be taken to a place that was unintended by the author. This process could repeat itself, leading the reader down a virtual

⁷³ Shown in Figure 45. Pop-up window for Page Drafts section appears to the right of the page. If there is more than one item, the number for the item you have open is listed as # out of how ever many are available. In the case of Figure 45, this is the page draft 2 out of 6. The reader can advance through these by either clicking the arrow buttons at the top of the drop-down menu or clicking on name of the image in the column on the left.

rabbit hole. This would, clearly, result in a significant disruption for the reader and impede their ability to create meaning from the narrative.

As I will demonstrate in this next section, many of the links within *Maus* take the reader to material that either demands a significant amount of time to explore/read or does little to aid in, or add to, their understanding of the narrative. In these instances, I would suggest that such material is more of an impediment than an aid to the reader's understanding due to the significant disruption in the flow of the narrative, thereby impeding meaning creation. Within *Maus*, there are hyperlinks that do expand the reader's understanding of the story, and in doing so partly fulfill the dream discussed earlier for this technology.

To begin my initial analysis using only the modality of interactivity, I will discuss the subareas of Page Drafts and Sketches. My experience, as a reader, found none of the material in these sections had any value as it relates to meaning creation or understanding of the page I was on or the chapter itself. Indeed, these two subareas often contained multiple items and therefore took time to click through each. If I were an art student interested in illustration or the process of creating graphic novels, these may have been of great value. However, the value would lie in what I could learn about artistic practices and methods, rather than my understanding of the narrative within *Maus*. Therefore, these do not offer any value to the reader.

The value of the Video subarea and the two clips contained within the pages selected for our analysis, sadly, also offers little benefit or value to the reader of the narrative. The first clip is of Spiegelman's trip to Auschwitz⁷⁴. The video has the shaky and meandering quality of home movies. While there is sound (the wind, indistinct talking in the background) no information is given through text, dialogue, or voice over that offers any explanation as to who shot this

⁷⁴ This is an assumption. Location present in the video appears to be a concentration camp. However, there is nothing in the video that indicates where the videos are being filmed.

footage, why there was a film crew with Spiegelman, or why he is sitting on a post reading a magazine of some sort. The second video also contains sound and appears to be an interview that Spiegelman conducted through an interpreter. My assumption is that this is on the same trip⁷⁵ due to the interviewee pointing out on a map of Auschwitz where Vladek was housed and what building he worked in.

I am unsure of the overall value of either clip. Neither was a significant disruption to the overall flow of the narrative. However, the homemade feel and lack of any clear purpose for either the camp footage or the interview did not add to my understanding of the events that occurred on page 202. These clips, additionally, did not provide any information about Vladek or Art as characters, nor contributed to the meaning I derived from the novels. Further, I have spent a considerable amount of time teaching about the Holocaust as a high school teacher. I have visited Dacau, one of the many death camps run by the Nazis, as well as researched this period of history extensively. The length and quality of the first clip did little to convey the size, imposing nature, or the sense of sadness and horror that both surrounds and fills the air and physical space of these camps. In all fairness though, I cannot imagine any 66 second clip could.

Another subarea contained within *Maus* is the Documents section. This hyperlink allows the reader to access various documents including magazine articles used by Spiegelman for research, transcripts of Vladek's interviews, maps, historical documents, photographs, and copies of other reference material (see Appendix H). The usefulness of these documents is also, in my opinion, severely limited due to the limitations of the technology at the time. For example, within the Documents section you can click the link to open a drop-down menu that lists all the file names (provided there is more than one example) of the items that are available for that page.

⁷⁵ Again, there is no context or information about this clip provided so it is impossible to know anything about it with any level of certainty.

Further, you are limited to how you can interact or manipulate the item. For example, within the Documents subarea, the reader can advance to the next image (if there is one), enlarge the image once, and rotate it both left and right at 90-degree increments.

While the drop-down menu for images allows the reader to access a particular piece of material more rapidly than they could by clicking through each item, it unfortunately still falls short. This is due to the naming conventions used in the creation of the disc. All the names for the assorted items in each subarea seem to have been automatically created by the program or computer system that was used to originally create them. For example, page 203 contains three still images of Art talking with Pavel. The name assigned to the first document for this page is doc_190_01.png⁷⁶. This name does nothing for the reader. It does not describe the content, how it is related to the page or a particular frame, and, as a result, the reader still must click through every item to determine what each image shows. Additionally, there is no explanation of the picture, what it shows, when it was taken, who is in it, etc.

While there is a Contents/Search feature⁷⁷, its usability also reflects both the limitations of the software and the fact that at the time of production, this digital work represented the cutting edge of technology. As a result, the inexperience of the publisher, editors, and author clearly shows. For instance, the search feature does not allow you to limit your search only to a particular chapter but instead takes you back to the landing page for *The Complete Maus* and displays everything it finds. The search feature is further limited since it only searches within the

⁷⁶ Other subareas are similarly named. For example, the first page draft in page 203's Page Drafts subarea is named DR203RD01.jpg.

⁷⁷ The Contents/Search hyperlink is located at the top of the column located to the left of each digitally reproduced page that contains the various hyperlinked icons for the various subareas.

digitally reproduced pages of the novels themselves and does not search any of the bonus material⁷⁸.

Within the Documents subarea, there are some valuable and useful material available to the reader. These include the original transcripts of Spiegelman's interviews with Vladek, artwork done by Holocaust survivors of scenes that they witnessed within the camps, the arrest warrant issued by the Nazis for Vladek and Anja, etc. This hyperlinked subarea, and its value as a separate modality, is complicated. As a reader, I did find material that aided in my understanding and thinking as it was related to the novels. For example, a still image of Pavel, the psychologist that Art sees in Chapter 2, while not radically changing my perceptions or thinking, was appreciated because it confirmed the mental image that I created of what Pavel looked like.

Other documents included in this subarea varied wildly in terms of their usefulness or value. For example, while I was drawn to the unedited transcripts of Vladek's interviews⁷⁹, they did prove to be significantly time-consuming. I found myself spending several minutes, if not more, reading these documents. This did interrupt the flow of my reading. Another minor issue was the way the transcript was presented. There are no breaks to indicate paragraphs. The method used to denote a change in speaker is discernible but requires some effort by the reader if they are to understand that the sentences/words enclosed by a ((in front and)) at the end represent where Spiegelman begins and where he ends talking. While I realized this quickly, I

⁷⁸ The program not only does not search the various subareas, but it also does not include in its search the two other areas of bonus content (Making *Maus*, An introduction and Art on Art).

⁷⁹ These consisted of what can be best described as a mediocre PDF of a rough xeroxed copy of the original typed transcript and the material available was limited to only what related to the creation or content of that page. This meant that often these transcripts were at most a page or two, and often only a much smaller section.

could see the potential for this to trip up and confuse readers and potentially impede their understanding.

Additionally, these transcripts and other reproductions of text-based or print documents, when initially opened, were not readable due to their small size on the screen (see Appendix H). Enlarging the document using the tool provided within the program, presented its own challenges. While the document did become big enough to read comfortably, initially only the left-hand corner of the page was visible (see Figure 46). To read this, the reader would need to click on the document and drag it to the left to view the entire page to read it. There was no ability to enlarge the document to full screen with a click or any other means. As a result of the issues explained above, the Documents subarea was not extremely effective as a multimodal element within *Maus*.

The two remaining subareas within the mode of interactivity are the audio clips of Vladek and Spiegelman⁸⁰. Out of the six subareas of additional material available to the reader within this electronic version of *Maus*, the audio clips were by far, in my opinion, the most useful multimodal element. The use of audio at least partially fulfills some of the promise discussed earlier by scholars of electronic and multimodal literature. Within the microanalysis pages of *Maus*, there were a total of seven audio clips (four of Vladek and three of Art talking). None of the audio clips were over a minute and a half in length and, as result, did not significantly disrupt the reading flow. Within these seven clips, the recordings of Spiegelman were more effective as a singular modality and had a greater impact on my understanding of the novel than the ones featuring Vladek. While the recordings of Vladek were useful as these provided me with a better understanding how he sounded with his heavy accent, and of his overall speech pattern, they did

⁸⁰ Transcripts of all audio clips of both Vladek and Art contained in the microanalysis section can be found in Appendix H.

not add much to my overall understanding. The audio clips, as a singular subarea, were one of the more effective methods in communicating meaning by itself. I would suggest that this is due to the use of speech as a primary mode of communication. The average reader/listener is intimately familiar with how this modality is structured and how it works, thereby allowing a reader/listener to understand and incorporate the information provided within their meaning making process easily and effectively.

To summarize my initial analysis of text, image, layout, and interactivity as independent modalities in the electronic version of *Maus*, I would argue that image and text are the most effective as singular modes in their ability to communicate meaning to a reader. However, both modes, as has been shown, fall short in their ability to convey the totality the information contained in a piece of electronic literature. Further, layout as an individual modality falls a distant second in its communicative capability, with interactivity, on its own, being ineffective. In this chapter I provided my initial analysis for text, image, layout, and interactivity of *Maus*. In the next chapter, I will use the data created to provide a metanalysis of how or if these four modalities can work together to create and/or extend meaning. This metanalysis will be done using DRCT.

CHAPTER 6: METANALYSIS

Using the data generated during my initial analysis discussed in chapter 5, I will create a metanalysis using DRCT and its three key concepts (interactivity, connectivity, and access).

Additionally, my analysis will also include a discussion of the synergistic outcomes that result from the process of cross-modal layering that occurs when all the modalities present within *Maus* are read/consumed as a single text. I will also address in this section how and/or if these interactions alter meaning.

DRCT Analysis – Time

My first example occurs at the start of Chapter 2 in *Maus*, where it is clear to the reader from the first panel that there has been an unexpected shift in time. This change is apparent using either mode text or image independently or together. The first panel contains the words⁸¹ “Time flies...” (Spiegelman, 2011, p. 201, panel 1) appears just above panel one. Recalling my earlier discussion, there are only a few other instances where there is a time caption (see Appendix C) that lies above the overall frame of all the panels within the page (see Appendix J). The layout and inclusion of this caption is the reader’s first clue that there is something different about this section of the novel. This idea is, for further reinforced elsewhere using text as well. There is a clear difference in terms in how pages 201 through 203 are lettered. These three pages use both upper and lowercase letters, when almost the entirety of the two novels use only upper-case letters.

Image as a modality is capable of communicating the time change independently as well. Through image, the reader sees, for the first time in either novel, that the characters are clearly human beings wearing masks (see Figures 22-25). As with text, this difference, I would argue

⁸¹ Or the modality of text.

suggests a time shift because it is clear that Vladek is not telling the reader his story, nor is this the story of Art trying to get information about Vladek's experiences. Instead, as both image and text make clear, we are in a time when the first part of *Maus* has already been published. The cross-modal layering of text and image reinforces the message of both, that clearly a time shift has occurred in this section. While this interpretation is confirmed, the information provided by these two modes does not provide enough for the reader to arrive at any sort of explanation as to why this time shift is occurring.

Layout, the presence of six different caption boxes on page 203, reinforces and expands the meaning that is being conveyed by text and image. By answering anticipated questions that a reader would likely ask (When was his daughter was born (panel 2)? Who Pavel is (panels 3-4)?) about what is being communicated through text if they could, Art is able to provide additional information (panel 5 about all of Pavel's cats and dogs) and talk directly to the reader⁸². It is the presence of the caption boxes that make it clear that Spiegelman is breaking the fourth wall⁸³ and talking directly to the reader. The breaking of the fourth wall by the mode of layout, via the use of caption boxes, alters the message of dialogue (text) and image on pages 201 and 203 by providing an element of immediacy. Through this direct conversation with the reader, Spiegelman helps to create the illusion that this conversation is occurring as the reader is reading the text.

These three modes, because of cross-modal layering, clearly communicate that pages 201 through 203 represent a shift in time. However, these three modes together do not make it clear to the reader why this is occurring. The presence of a fourth modality, interactivity, within our

⁸² e.g., The question in the insert panel about possibly messing up the metaphor that he is using and panel 8's pointing out the presence of a framed picture of a pet cat in Pavel's apartment.

⁸³ Breaking the fourth wall occurs when a character in a book, TV show, movie, play, etc. in some way acknowledges the presence of a reader or audience, and at what is happening is part of a text or performance.

electronic version of *Maus* offers the possibility, through cross-modal layering, that the reasoning for the presence of time shift might be made clear. This is of course provided that the reader chooses to engage with the text and the interactive element included. In this instance, the interactive element comes in the form of a brief audio clip of Spiegelman discussing this section of the novel. In the transcript of this audio clip (see Appendix H), Spiegelman states, “The only way I could move forward... [was to create] a different layer of present than anything that happened before. There was a present with Vladek and me talking and the past with his story. ... We now had a kind of super-present and the super-present is done with certain devices” (2011, p. 201, Art Audio).

Spiegelman goes on to explain that he attempted to communicate this shift in time, i.e., the super present, to the reader by using upper and lowercase lettering and by making it obvious that the characters are humans wearing masks. As stated above, while text, image, and layout, were able, separately, and together, to communicate to the reader that there had been a change in time, there was still a significant amount of ambiguity about why this had occurred. The additional information provided by the audio clip to the other three modalities alters the meaning created for me as a reader and, as a result, this impacted my understanding.

DRCT Analysis – Mental Health of Art

The second example of the ability of cross-modal layering to have an impact on a reader’s understanding and meaning making is shown through the representation of Art’s mental health on pages 201-203. Art’s dialogue on page 201, panel five, in which he discusses the success of *Maus I*, his mother’s suicide in 1968, and he off-handedly states that lately he has been feeling depressed. The next indication that Art may be struggling with his mental health occurs on page 203, where Art states that he does not feel like a functioning adult and mentions

how the ghost of his father still hangs over him (panels 1 and 2, respectively). The rest of the text on page 203 revolves around Art's visit with Pavel, his psychiatrist. Art shares with him how he feels "like crying" and "messed up" (panel 6) in addition to mentioning other symptoms that lead the reader to the conclusion and Art is depressed.

Besides the dialogue discussed above, text also is able to communicate this depression through lettering. All of the dialogue where Art breaks the fourth wall and talks directly to the reader, is arguably stated in a flat affect. Art's dialogue demonstrates this idea due to the lack of any indication of emotion as Art is speaking. There are no stylized dialogue balloons, emotional state markers, special effects lettering, bolded, etc. The only variation in the flat affect that Art uses on pages 201 and 203 is when he mentions being "BLOCKED"⁸⁴ (p. 203, panel 8). Despite this word being bolded, given the nature of the rest of the conversation, I would argue that this indicates additional emphasis with little actual emotion. Overall, the text creates an impression that Art is depressed, but there is no indication of the severity of his depression.

The addition of image and layout as a mode to text dramatically alters the meaning of the first three pages for me as a reader. Through the meaning created by cross modal layering the reader gains the ability to fully see and question Art's reality. Art's mental health is further called into question on page 203 when neither the bodies nor the flies disappear until Art arrives at Pavel's for his counseling appointment. As a reader, the meaning created by the combination of the three modalities together leads me to conclude that Spiegelman found himself ill-equipped to deal with the pressure of being an "overnight" success after the publication of *Maus I*. Pressure that resulted from his own expectations, as well as those of the public, his editors and publisher, friends, family, etc. to create something that would be as successful as the first novel. Pressure

⁸⁴ He is experiencing writer's block.

that was simply overwhelming. Through the combination of these three modes, I have a greater understanding of the impact Art's success, the loss of his father, and the amount of time he was spending delving deep into history and experiences of victims and survivors as he researched and wrote *Maus II* had on him.

The last mode, an interactive element, which is part of page 203, is in the form of an audio clip of Art discussing his relationship with Pavel. In this interactive element, Art explains the purpose of his visits to Pavel, who was also a survivor of Auschwitz. He refers to Pavel as “a shrink” (Spiegelman, 2011, p. 203, Art Audio). In this clip, Spiegelman explains that he did not go “to correct a dysfunctional sexual problem or any specific neurosis ... [but, instead, as a way] to continue the conversation with my father with somebody much more articulate and empathic and get very specific and very detailed information about life in Auschwitz” (ibid). Spiegelman, in this clip, is clearly making the claim that he was not seeking any type of therapy. Instead, he states that he saw Pavel as a way to “continue the conversation with my father⁸⁵ with somebody much more articulate and empathetic” (ibid) and viewed his appointments as a “business expense” (ibid). The audio contradicts what the three other modes are communicating as seen on pages 203-206 in *Maus*. My reconciliation of the information presented in the modes of text, image, layout with the contradiction created by the mode of interactivity is discussed below. As is my understanding as a reader that resulted from this process.

DRCT Analysis – Reliable Narrator

While Spiegelman may have believed what he said in the audio clip referenced above, as a reader, I do not. As a result, I am forced to question Spiegelman as a narrator for pages 201-203. Through the creation of the super-present referenced above, I would argue that it is now

⁸⁵ Vladek died August 18, 1982 (Spiegelman, 2011, p.201). Art, according to the information on page 201, began creating that page 5 years after the death of his father.

Spiegelman who is the narrator for the three pages set in this third time he creates. The claims he makes during the audio clip simply are not believable to me as a reader. I would argue that there are two aspects of what occurs on these three pages that support my contention.

First, the conversation that occurs between Art and Pavel on pages 203-206 very much has the feel of a therapy session, not an interview. As he is talking with Pavel, it is obvious that Art is working through not only personal issues⁸⁶, but he is also discussing and reflecting on his relationship with his father. Art's feelings toward Vladek range from guilt, anger, and inadequacy to a sense of admiration, and a desire to understand him. Pavel, in his role as therapist, offers a distinct perspective on Vladek's actions and Art's feelings, and offers insights/observations that Art may not be able to see for himself. Art acknowledges this on page 206⁸⁷ when he states that he does not "understand exactly why but the sessions with Pavel somehow make [him] feel better" (Spiegelman, 2011, p. 206, panels 8-9).

Second, the majority of the conversation that takes place on these four pages does not seem to fit Spiegelman's claim in the audio that the sessions were an attempt to continue the conversations with his father or to get specific, detailed information about Auschwitz (Spiegelman, 2011, p. 203, Art Audio). Again, closely examining the 26 panels that make up this section, I found that eight of the panels relate to Art's current life and issues, six discuss Art's relationship with his father, seven deal with the question of survivor's guilt and the fear one

⁸⁶ Writer's block, depression, and the stress of *Maus I and II* success.

⁸⁷ This page lies outside the one selected for microanalysis. However, one of the three concepts that form the heart of DRCT is the idea of connectivity. Connectivity, as was explained earlier, not only relates in part to where hyperlinks or other navigational aspects may take the reader, but also to the connections that a reader makes to a given text based upon their experiences, knowledge base, cultural understanding, etc. *The Complete Maus* was read by me as the first step in the MLA methodology. Using this initial reading, Chapter 2 in *Maus II* was selected and read again. This resulted in the creation of a summary. This summary informed the selection of pages from Chapter 2 for microanalysis.

experienced in the camps. Only three relate to anything specific about Auschwitz⁸⁸. A full 50% of the panels (13) deal specifically with Art's relationship with his father, and Art's attempt to understand how surviving the death camps impacted not only Vladek's personality, but how Art saw his father as a person. Again, I would argue that this is the type of conversation that occurs not an oral history interview or the transcript of a business transaction, but instead, is the type of discussion that would occur during a therapy session.

I would suggest that the addition of the audio clip as an interactive element in the DVD contradicts the meaning created by the other three modes. As a result, the audio forces the reader to reconsider what this section means due to the audio clearly contradicting Art's characterization of his relationship and sessions with Pavel as shown using text, image, and layout. These modes work together to establish and extend the idea that Pavel is a therapist who is working with Art to improve his mental well-being. Nowhere, in my reading of these three modes, is there anything that reflects the contradictory information contained in the audio clip. This material forces the reader to alter their understanding of the section due to the contradiction that exists.

DRCT Analysis – Characterization

Cross-modal layering is a highly effective way to employ characterization as a method to bring a character to life on the page. By utilizing multiple modalities, an author can quickly create for the reader a nuanced and complex character. This technique is demonstrated in the portrayal of both Art and Vladek as characters. My previous discussions of Art's depression, feelings of inadequacy, presence of intergenerational trauma, etc. have, I believe, provided such an analysis as it relates to the characterization of Art.

⁸⁸ Art states that he does not know what to draw in terms of machinery and tools as part of the tin shop Vladek worked in, and Pavel lists a few things that probably would have been in the shop in Auschwitz based on his experience as a kid working in a tool and die shop in Czechoslovakia.

The second primary example of characterization that harnesses cross-modal layering is Vladek. Throughout much of the two novels of *Maus*, Vladek is shown as an argumentative, angry, and cheap individual⁸⁹. Vladek is also characterized as being intelligent, perceptive, and cunning. All these qualities are apparent in the section of *Maus* selected for microanalysis. For example, in the scene on page 220, Vladek talks his way into a new job as a shoemaker, despite having no real experience as one. Vladek demonstrates the confidence that he has in himself and his abilities, even if what he had to offer is short of what the job requires. Yet, due to his resourcefulness, Vladek quickly learns the necessary skills and manages to succeed.

Imagery reinforces these characterizations of Vladek. In Figure 48, Vladek is scowling and angry with Art and blames him for the broken plate, despite the fact it was Vladek who dropped the plate he was holding. In the previous panel, Vladek yells at Art for starting to throw away the broken plate, stating that he can glue it together. This exchange, like others that occur throughout both novels, reinforces the reader's understanding that Vladek is extremely difficult and contentious⁹⁰.

However, this characterization of Vladek, although supported extensively by the modalities used by Spiegelman to create his narrative, is, at times, contradicted. For example, there are multiple places throughout the novels where Vladek risks his life to protect and provide for Anja. One such example is illustrated on pages 222-223 through the modes of text and image. The interactive modal element (an audio clip of Vladek) that is part of page 223 reinforces this assertion with the story Vladek tells about his efforts to protect Anja. Vladek explains how he arranged to smuggle the boots of the cruel Kapo that oversees Anja's barracks so that he could

⁸⁹ While this does not draw exclusively from the section selected for microanalysis, part of DRCT is the concept of connectivity which, as has been defined within this dissertation, includes a reader's use and understanding of prior knowledge, other literary works, cultural conventions, etc.

⁹⁰ In Chapter 2, Mala, Vladek's second wife, has left him due to his extremely difficult nature and personality.

repair them. By doing this, Vladek earns the Kapo's gratitude and, as a result, ends Anja's abuse at the Kapo's hands and helps Anja land lighter work assignments as well. There are other representations throughout the novels of Vladek taking similar risks to protect and provide for Anja as much as possible during these times. These actions contradict the primary impression that readers are given as it relates to Vladek as a character. Instead, the above examples complicate Vladek as a person and demonstrate that he is capable of love and self-sacrifice as well.

One final way Vladek is characterized is through his dialogue. This example of cross-modal layering and DRCT analysis relates to how Vladek is characterized as a prisoner, versus how he is characterized as a survivor. I would argue that it requires both text and image if this time shift is to be successfully communicated. Without image, I believe that most readers would not consciously notice the differences due to the subtle way it is shown without the prompt provided by a visual. Figure 46 provides an example of how this difference in how Vladek the prisoner is differentiated from Vladek, Art's father. At the bottom of the frame in Figure 46 there is a caption box. The text that appears represents how Vladek, Art's father, speaks as he is telling the story of what happened during this event to. In the caption box, Vladek is speaking in broken English. This is how Vladek's dialogue is portrayed primarily throughout both novels. However, in the same frame Vladek's dialogue with the other prisoner is fluid and smooth. What the image helps to communicate is Vladek is in the past and, as a result, is much more fluid in the language that this exchange took place in⁹¹ then he is when it comes to speaking English (which is not Vladek's first, second or even third language⁹²).

⁹¹ it is very rare that any of the modalities available to the reader as part of this electronic version of *Maus* give any sort of indication what language is being used in a given panel.

⁹² In all, Vladek was able to speak five languages (Polish, Yiddish, German, French, and English).

DRCT Analysis – The Holocaust

My final example of analysis using DRCT relates to Spiegelman's commentary on the public's view and knowledge of the Holocaust. As briefly mentioned earlier, as a result of the success of *Maus I*, Art is inundated by new demands for interviews, offers for product tie-ins, movies, and other business propositions related to the novel. These events are represented in a scene that takes place on page 202⁹³. I believe that the scene that takes place on page 202 is Art's commentary on society's emphasis on making money, the media seeming need to sensationalize everything, and the public's ignorance of history. In panel 1, the first reporter and camera operator callously climb on the corpses surrounding Art and his desk. Other reporters and businessman, who are also present, follow suit and soon encircle Art and his desk. All stand on the bodies. Their only focus is on what they want, with no thought or reflection on how these actions could be perceived. The questions being asked by these individuals reflect a similar callous and unthinking approach. Art faces the unimaginative (what is your book's message or was creating it cathartic?), the inane (what animals would Israeli Jews be?), and the dismissive (why should Germans, and by extension—anyone, who wasn't alive during the war feel guilty?).

The scene portrays the pressure Art faced to cash in on the novel's success. It shows the offers to buy the TV/film rights, offers to license various aspects of the novels, and even offers for product tie-ins (see page 202, panel 6), and the incredulous responses he received when he refused. This willingness to exploit the suffering of not only Spiegelman's father, but also that of the other victims at the hands of the Nazis, to make money reflects a complicated truth and applies to all this section.

⁹³ I am assuming that this scene is a composite of several different events relating to interviews, business, product tie-ins, etc.

One that was true when the scene transpired⁹⁴, and one that is still true today. I would argue that the antipathy, willful ignorance, and lack of understanding by the public as illustrated by the modes contained in these pages is an accurate reflection of how the Holocaust is approached and thought about in our modern world. While humanity has not fully forgotten these events, most seldom understand or want to their causes or the necessity to remember. This has only deepened its moral stain on humanity.

Conclusion

In this chapter, I compiled the data created using MLA as the methodology and completed an initial analysis of the data in an effort to determine how each of the four modes chosen for this dissertation, were able to create meaning monomodally within the 11 pages selected for microanalysis from the graphic novel *Maus*. Upon completion of this initial analysis, I transferred the data from each individual field note sheet onto a combined set of field notes. Once this was complete, I used DRCT as the theoretical lens to conduct a metanalysis of the data. As part of my analysis, I examined how the meaning of a single mode could be altered through addition (i.e., the cross-modal layering) of one or more additional modes would alter the meaning a reader creates from a given text. By doing so, I was able to examine whether this addition(s) changed the reader's understanding of that text. By doing so, I demonstrated how DRCT can be applied to determine how multiple modes work together and/or against each other to create meaning for a reader.

The last chapter of this dissertation will provide a summary of each chapter. In addition, I will reflect on my research questions and provide an initial evaluation of MLA as a methodology, and DRCT as a theory. Based on these conclusions, I will suggest implications this dissertation

⁹⁴ The scene is approximately set 41 years after the end of World War II in 1986 following the publication of *Maus I*.

presents for the study of multimodality and electronic literature. Finally, I will identify the limitations of the research represented by this dissertation and suggest areas for future study.

CHAPTER 7: CONCLUSION

This chapter synthesizes key findings from my examination of Art Spiegelman's digital version of *Maus* using Multimodal Literary Analysis (MLA) as a methodology and Digital Radical Change Theory (DRCT) as a theoretical lens. I reflect on how the research questions were addressed, evaluate the effectiveness of both MLA and DRCT as analytical tools, discuss the implications of this research for multimodal studies, acknowledge limitations, and suggest directions for future research. Finally, I offer my personal reflections and thoughts on this research project in closing. First, a brief review of each chapter.

Review of Chapters

In Chapter 1, I explored how the emergence of multimodal electronic literature transformed storytelling. As a result of this digital revolution, the art of storytelling was fundamentally changed. Digital tools allowed writers to free their narratives from the constraints of traditional linear formats. This new form of literature led various scholars to recognize that traditional text-only approaches are increasingly insufficient for studying literature. Scholars like James Gee and Cynthia Selfe began to argue for an expansion of the definition of literacy. Despite growing interest in digital literature, studies showing large increases in e-book reading among children, the field has significant gaps relating to how meaning is created using multimodal elements.

In Chapter 2, I provided some historical perspective on the transition from print to digital literature during the 1990s-2000s, describing early studies that focused on how digital technology transforms the reading experience. Additionally, early scholars focused on the increased presence and use of multimodality as part of the storytelling process. This type of literature requires readers to be able to understand the various grammar that each mode may

require if it is to be understood. This shift demands new literacy skills as readers become co-creators who can influence narrative direction and experience content in non-linear ways.

In Chapter 3, I evaluated MIA, a methodology created by Sigrid Norris, to determine if it would be an effective way to study multimodal literature. After careful consideration, I found that MIA, in its current form, was not workable as a method for studying multimodal digital literature. As a result, I used MIA as a foundation to build MLA. Unlike MIA, MLA is concerned with readers' understanding of modes and how these multimodal elements work together or in opposition in creating meaning in digital texts. Using the MLA process, I selected and introduced in this chapter the representative sample from *The Complete Maus* for my case study.

In Chapter 4, I discussed Eliza Dresang's development of Radical Change Theory (RCT) as a theory. RCT focuses on multimodal digital design elements that work together in a synergistic manner to create meaning greater than the sum of its parts. Despite recognizing the importance of multimodality, Dresang limited RCT to printed texts influenced by digital design. This made RCT an insufficient tool for the examination of digital literature. Building off her work, I created Digital Radical Change Theory (DRCT) to have a tool capable of analyzing digital literature. In the chapter, I described how DRCT can examine the synergistic possibilities that multimodal literature offers through the combination of two or more modes through a process called cross-modal layering. The recursive nature of interpretation emphasized in DRCT and cross-modal layering allows a reader to use their experiences, the social context of the text, their understanding of various modal grammars, etc. to create meaning that moves beyond a mere literal understanding of the text.

In Chapter 5, I focused my analysis on four modalities present in the selected section of *Maus* (text, image, layout, and interactivity). I used MLA to compile data and then I conducted

an initial analysis of each mode separately using close reading. Once I completed my first analysis of each mode, all data related to each was compiled into a set of field notes. This was then used to conduct the metanalysis

In Chapter 6, using the compiled data sheet, I began my metanalysis of the material using DRCT as the methodology in an effort to provide answers to my two research questions. This metanalysis demonstrated how meaning can be confirmed, extended, altered, or contradicted through cross-modal layering and how meaning is then created by the reader through DRCT.

Research Questions

This dissertation set out to answer two central questions related to multimodal digital literature. The first sought to understand how digital tools and the incorporation of multimodal elements in literature might alter our understanding of not only how narratives work, but also how meaning is created. Second, this dissertation sought to explore how the addition of one or more modal elements to a mode(s) may alter the meaning of the text for the reader. The findings have made a significant contribution to our understanding of how digital tools and multiple modalities affect a reader's comprehension and meaning making.

Regarding the first research question, this study found that digital formats do offer unique communicative possibilities not available in traditional print. As shown through my study of *Maus*, an author that chooses a digital format to tell their tale has the potential to offer the reader not only material using multiple modes but also offer it in ways that could not be done using a monomodal or nondigital format. This is evident within the electronic pages of *Maus*. The inclusion of audio clips, for example, provided missing information that proved to be essential if I were to fully understand certain sections.

Second, this study confirmed that the addition of even a single mode to a monomodal text can dramatically alter meaning due to the process of cross-modal layering. Each mode present in a text must be considered in terms of what it, individually, is trying to communicate. In addition, the reader must also consider how each of the modes interacts with the others and whether or not it is confirming, expanding, altering, contradicting, or some combination thereof, that message.

Findings

The metanalysis of *Maus* produced several significant findings as it relates to multimodal digital literature and how meaning is created through cross-modal interactions. They are discussed below.

Digital Tools and Narrative Understanding

The findings show that digital tools significantly alter how narratives work and how readers create meaning. In *Maus*, the digital format offered multiple modalities—text, images, layout, and interactive elements—that could not be experienced in a traditional print or monomodal format. The audio clips and supplementary materials provided context that enhanced my understanding of the narrative in ways that would be impossible in print form. This was made clear within the electronic pages of *Maus* through the inclusion of audio clips and other additional materials essential for my being able to fully understand the whole of the narrative. While some of the materials offered to the reader as part of this digital version did not necessarily have a measurable impact on my understanding, their presence confirmed that millions of people like Vladek and Anja have offered up their experiences as witness to these events, and, despite efforts by many, affirmed the factual nature of what transpired and provided documentation of survivors' experiences, giving the narrative additional historical weight and authenticity.

Cross-Modal Layering and Meaning Creation

As stated earlier, each mode that is added to a text can alter meaning as a result of cross-modal layering (i.e., the interaction of two or more modes). When multiple modes are present, readers must simultaneously interpret what each mode communicates individually while also considering not only how the various modes interact with each other, but how that interaction alters their understanding of the text. This process, as stated previously, results in a reader's initial understanding being confirmed, altered, extended, or contradicted.

In the case of *Maus*, all four outcomes were observed. For example, when text was layered upon images, the result was confirmation that a time shift of some sort occurred at the beginning of Chapter 2. The addition of layout, through caption boxes that break the fourth wall and talk directly to the reader, further extends the interpretation that the author is trying to communicate that there is something unique about this section of the narrative. Lastly, the inclusion of an interactive element, in the form of an audio clip of Spiegelman, significantly challenges and alters my understanding of what I was seeing in the narrative by clarifying why a time shift was necessary and highlighting how the author signaled this addition of a third time to the reader. Similarly, the audio clip where Spiegelman discusses his sessions with Pavel contradicts the representation of these sessions offered up by the modalities of text, image, and layout. The result of this contradiction is my questioning the reliability of Spiegelman/Art as a narrator.

Literacy Education

The findings suggest that traditional approaches to literacy education may be insufficient for preparing students to engage with increasingly multimodal texts. Since 2016, the need for this type of teaching should be obvious, and while the public has grown increasingly aware of mis-

and dis-information, neither has lost their power to sway opinion and shape belief. Indeed, that power only seems to be growing. This is in large part due to the sophistication and skill at which spreaders of this type of material are able to use multimodal tools to craft their messages for maximum impact. Most members of the public, including students, do not have the skill base or tools needed to combat the effects of mis- and dis-information of these messages. As a result, I would argue that literacy educators, ELA teachers, and others who teach media literacy need to incorporate strategies for understanding and breaking apart multiple semiotic resources simultaneously to equip students with the strategies and tools necessary to engage with these texts critically. I will elaborate on this later as I discuss my role as a teacher.

Evaluation of Multimodal Literary Analysis and Digital Radical Change Theory

Overall, I believe that both tools—MLA and DRCT—performed admirably as methodological and theoretical tools in the study. We live in a multimodal world and are exposed to an often-haphazard mish-mash of modalities, experiencing many at the same time. Each one attempts to communicate an idea or message simultaneously and sometimes in sharp contradiction with the other modes. As a result, consumers of digital media often must combine, interpret, and create at least a minimal level of meaning as they make their way through the deluge of information. These initial interpretations may be lacking due to overlooking or misreading various modes or their interactions. As a result, while we may notice at times the various modes at work, I would argue that most people seldom stop to think about what they are seeing, how these modalities are interacting, or how these interactions aid or hinder their understanding, or the meaning derived from these sources. MLA, as a methodology was extremely useful in identifying those factors.

MLA as a Methodology

Multimodal Literary Analysis proved valuable as a methodological approach and provided a more comprehensive understanding of how individual modes function within the text before considering their combined effects. This process also focused my attention in a manner that sought to limit any impact that my prior knowledge and experience with the text as a whole may have on my analysis of each singular mode. By separating each mode, I was able to identify specific instances where modes were creating meaning in ways that might otherwise have been overlooked. Finally, the process of creating sets of field notes for each modality, before compiling the data into one comprehensive document to be used in my metanalysis, aided me in my analysis and helped in the identification of patterns of how modes were being used across the selected text.

However, the process of isolating modes from one another proved challenging in practice, particularly with modalities that are integrated and cannot be separated easily, if at all (i.e., such as layout and image). Future refinements of MLA might develop more systematic techniques for modal separation. While I was able to separate these elements digitally for analysis purposes, this process was time-consuming and somewhat artificial. Further development of MLA is needed in order to streamline techniques for separating modalities. In addition, if the text included any video elements, movement, etc. it would be impossible to isolate these from other modalities like image.

DRCT as a Theoretical Approach

As a theoretical tool DRCT also worked well in guiding my analysis of Maus. Using the data gathered using MLA, I was able to determine how individual modes were creating meaning as part of my initial analysis. I then used DRCT to conduct a metanalysis of how meaning was

changed and altered when the modalities were combined. Using the cross-modal layering framework effectively captured the different ways modes can influence one another. DRCT's integration of modal grammars and emphasis on reader participation in meaning-making proved particularly valuable for understanding the unique characteristics of digital literature. This demonstrated that DRCT has the ability to answer one of the basic problems of multimodality, which is what is each mode doing to create meaning and how they work together or against one another to create meaning as they are combined (Bucher, 2017, p. 92).

By expanding on Dresang's Radical Change Theory, DRCT provides a framework for understanding how digital formats alter narrative experiences through three key concepts: interactivity, connectivity, and access. 1) Interactivity, as defined here, refers to the format and structure of the digital narrative. My analysis considered how digital text uses nonlinear storytelling, hyperlinks, a variety of modes, etc. Additionally, I examined whether the presence of these elements engaged the reader and aided in meaning creation as a result of the reader becoming more actively engaged and involved. 2) Connectivity refers to the connections a reader makes as they experience the various modes within a text and how these impact their understanding. Within this dissertation, connectivity is demonstrated by drawing upon previous knowledge of the grammars of comics and literature and combining that with historical knowledge to create both the initial and metanalysis sections. 3) Access, as defined in this dissertation, refers to the reader being able to fully access all of the various elements (video, hyperlinks, sound, etc.) as they read. This, while initially difficult due to advances in technology, I was able to access and interact with the digital media. However, unless one has access to older equipment and operating systems, this would not be possible.

One area that I feel needs to be addressed with DRCT relates to isolating the various modalities. As discussed above, the issue of separating out the various modes from each other was difficult. Another aspect of this was that I initially found it quite difficult to compartmentalize what I was “reading”⁹⁵ in order to consider how it was working and what it was communicate as an independent mode and not reference my prior knowledge of the text as a whole. While it became easier with practice, I still found myself stopping during my initial analysis to question whether what I was concluding was based on what I was seeing within that one example, or it was being informed by my prior knowledge. One way to address this would be to have another researcher separate the modes while a second individual does the initial reading and analysis.

Implications for Multimodal Studies

1. This dissertation contributes to multimodal studies in several significant ways: MLA provides a structured, methodological framework for approaching and analyzing digital literature that can be adapted for use in other areas of research and offers a practical tool for scholars to use in their examination of similar texts.
2. DRCT extends an existing theoretical framework to address the unique characteristics of digital literature. Its development addresses a gap in current theory in its examination of the interplay that occurs within a multimodal text as modalities combine to create meaning.
3. DRCT recognizes and identifies cross-modal layering as a process. This concept contributes to our understanding of how multiple modes interact to create meaning.

⁹⁵ Included in my use of the word “reading” viewing an image, listening to an audio clip, watching a video, etc.

4. The dissertation as a whole, aids in our understanding of how readers engage with and create meaning from digital multimodal texts. This has implications for teaching, educational resources, and media literacy.

Limitations

The design of this study presents some limitations:

1. By selecting and using a representative sample contained within a single chapter, I may have missed other modalities and their interactions. Additionally, I am not able to confirm that the patterns I identified are present in other areas of the novel.
2. Both my methodology and theory have been altered to better fit the needs and demands of the multimodal electronic literature under study in this dissertation. These modifications to both MIA and RCT may negatively impact analytical strengths that each may possess. Additionally, these alterations may also result in MLA and DRCT being less valid and reliable than their progenitors.
3. The multimodal nature of *Maus* means some elements (visual, textual, symbolic) might receive more attention than others. Additionally, as with most qualitative research, there is a risk of researcher bias in interpreting the various multimodal interactions. Also closely related to this is the possible influence prior knowledge of the text may have had as it relates to my analysis of the individual modes.
4. The digital version of *Maus* examined in this study is difficult to access due to changes in technology. This highlights a broader challenge in researching digital literature—the ephemeral nature of the medium itself.
5. Finally, as stated at the beginning of this dissertation, the claims and findings made within these pages represent my analysis and understanding of how each mode creates

meaning singularly, and then how that meaning can be extended or altered through the process of cross-modal layering. My conclusions are therefore not generalizable or representative of what other readers may experience. Also, these findings may not be generalizable to other multimodal electronic texts or narratives.

Directions for Future Research

There are several areas related to this study that would benefit from more research:

1. Applying both MLA and DRCT to a born digital⁹⁶ text. One such possibility is *inAnimate Alice*, which was written and conceived as a digital text and is only in digital form. The first four chapters of this novel were published⁹⁷ between 2005 and 2008. *Alice*, like *Maus*, is one of the few works of digital literature that enjoyed a fair amount of critical success⁹⁸.
2. Increase the scope of the study. While my focused approach allowed for a deep and detailed analysis of the selected section, it may not capture variations in how modes interact in other parts of the book. Future research could extend this study by analyzing additional chapters, selections from both novels, or the entirety of *Maus II* to explore whether similar patterns and interactions hold across the broader narrative.
3. Examining how the same narrative functions across different platforms (print, CD-ROM, web-based, etc.) could illuminate how technological affordances influence multimodal meaning-making.

⁹⁶ An example of a “born digital” text is a text is Joyce’s *afternoon – a story*. This text was written and designed to be read and published as an online story only. This enables it to incorporate any modality that one could encounter on the Internet or as part of a computer program.

⁹⁷ The publishing dates for each chapter are as follows, Chapter 1 – 2005, Chapter 2 – 2006, Chapter 3 – 2007, and Chapter 4 – 2008. Chapters 4 and 5 were published in 2015 and 2016, and Chapter 6 was published in 2018 as a VR experience. There are plans to produce the last four episodes.

⁹⁸ *inAnimate Alice* has been incorporated into various national and local secondary curriculums in Australia, Canada, the United Kingdom, and the United States. The series and various individual episodes have won numerous awards including the AASL Best Website for Teaching and Learning.

4. Investigating how multimodal digital literature could be incorporated into educational settings would build on this research's theoretical foundations. This research could explore how multimodal literacy skills are developed and how digital texts might enhance learning. This research could possibly take a mixed methods approach with a class or group of students that are reading a shared text that could examine cultural influences, familiarity with digital devices and literature, and/or teaching methods. Such a study could possibly use the digital text, *inAnimate Alice*. This work is already currently being used in many schools, including many internationally. Another possibility is studying various methods and teaching techniques in an effort to begin establishing best practices for teaching multimodal digital literature.

Conclusion

This dissertation has shown that multimodal digital literature creates meaning through complex interactions between text, image, layout, and interactive elements that transform how a reader creates meaning as they interact with these types of texts. Through the development and application of Multimodal Literary Analysis and Digital Radical Change Theory, this research has provided new tools for understanding how digital literature functions and how readers engage with multiple semiotic resources simultaneously. My analysis of *Maus* has also revealed that digital formats offer unique storytelling possibilities that extend beyond what is possible in print, while also presenting challenges for both their preservation and accessibility. This research is significant because digital literature creates a fundamentally different reading experience that requires an innovative approach to its study and analysis. Multimodal digital texts demand more from readers who must integrate various modes, each communicating information that they may

or may not conflict with the other modalities present to craft their own meaning and understanding of the text.

As digital literature continues to evolve with emerging technologies, the analytical approaches developed in this dissertation provide a foundation for future research that acknowledges the distinct characteristics of electronic texts and their multimodal nature. By advancing our understanding of how meaning emerges through cross-modal interactions, this research contributes to broader considerations of literacy in the digital age and highlights the need for approaches to reading and interpretation that account for the increasingly multimodal nature of contemporary literature. As we continue to navigate the transition from print to digital forms of storytelling, such research becomes increasingly vital for both theoretical understanding and practical applications in education, preservation, and digital design. This research not only expands our understanding of *Maus* as a groundbreaking work of digital literature but also contributes to the broader conversation about how digital tools are transforming narrative, reading, and meaning making in the 21st century.

Final Reflections

As a high school English teacher, I have witnessed the digital transformation discussed within these pages and seen the changes it has brought to both my children's and students' reading and writing practices change. For them, answers to almost any question can be found almost instantly. News and gossip alike can be shared with the touch of a button. It is not surprising then that social media is "becoming an important part of Americans' news diets...particularly for younger adults. Overall, just over half of U.S. adults (54%)" (*Social Media and News Fact Sheet*, 2024) state that they sometimes get their news from social media (multimodal texts shared as posts, updates, reels, etc.). However, those ages 18-29 years old,

37% report that they *regularly* get their news from social media (Stocking et al., 2024, emphasis added). This reliance on social media for news and information opens these groups up to a much greater risk of falling for false or misleading information. According to a 2018 study, false information spread roughly six times faster than information that was factually correct (Vosoughi et al., 2018). Despite the prevalence of digital media and electronic texts where meaning is created through multiple modes, the curricula in most schools are stubbornly anchored in traditional print-based literacy. Clearly, as educators, we must adapt our teaching to address this shift to digital and electronic texts in order to equip students with the knowledge and skills needed to critically evaluate these texts, whether those texts are multimodal literature or social media content.

The facts above, combined with my own experiences, support the contention that students do engage differently with texts that incorporate multiple modalities, often making connections that surprise me with their depth and complexity. When I have used graphic novels or digital texts, it is clear through my students' responses that they are constantly processing how the different elements interact to create meaning through the process of cross-modal layering⁹⁹. Students who struggle with traditional texts become discussion leaders as they skillfully analyze how illustrations, text, font choice, or any number of other modalities reinforce, complicate, contradict, and/or expand meaning.

While the above is true for some students, it does not hold true for all. In my experience, many students do struggle moving beyond a basic interpretation of a multimodal text or event due to their focus on one or two modes. In these instances, students usually rely solely on the mode(s) (i.e., text and/or image) that they feel the most comfortable with. As a

⁹⁹ Though at the time I had not created this term.

result, they ignore the other mode(s) that are present and fail to consider the potential contributions the additional mode(s) may offer to their understanding. I believe this decision is a result of society's valuing of text as the dominant method of communication, with image being a close second¹⁰⁰. As a result of this research, I realize that I must be more explicit in my instruction to develop their understanding of how multiple modes, like text, image, layout, and interactivity, can function both independently and collectively to create meaning. One method that I will be incorporating in my teaching practice is asking students to examine a modality in isolation and then ask them to analyze what the mode is trying to communicate to them as a reader. This would provide the scaffolding need to then repeat the process by adding a modality. Each time one is added I would repeat the process of guiding them through an initial analysis of the new mode, and a discussion of if or how cross-modal layering may change the meaning they derive from the text. This might help make visible the often-invisible processes of meaning-making that occur when we engage with multimodal texts.

An important part of these discussions would also include conversations around the cross-modal layering that occurs between modes, and as a result, can force readers to combine, and sometimes reconcile, information. This is the kind of critical evaluation I believe MLA and DRCT could aid in developing with students. Both of these tools would aid students in their ability to articulate how individual modes create meaning, and how meaning can be reinforced, extended, altered, or contradicted as a result of cross-modal layering. By providing such instruction, I believe my students will have the language, tools, and knowledge necessary to break down a multimodal narrative event into its individual parts. By learning to use such tools,

¹⁰⁰ This contention is echoed by Beach et al., 2010; Baron, 1999; Geison, 1996; Landow, 1992; and Eisner, 2008a, 2008b. All of whom made similar claims about the dominance of text (and to a lesser extent, image) and the difficulty society finds in breaking free of its confines.

as readers, they are better equipped to analyze and understand the message(s) being conveyed within a narrative.

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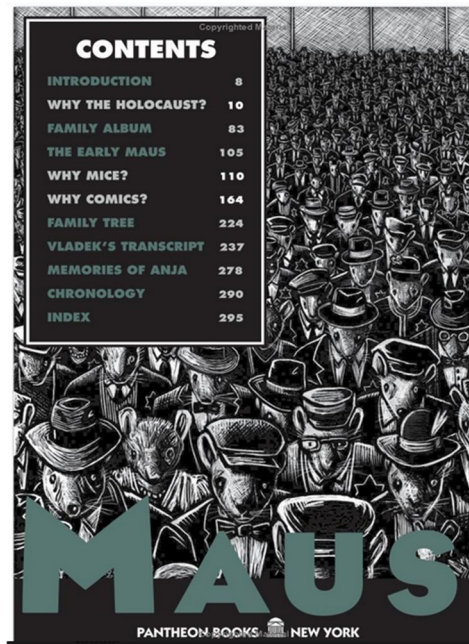
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APPENDIX A: FIGURES

Figure 1. Table of Contents from *MetaMaus*.



CONTENTS	
INTRODUCTION	8
WHY THE HOLOCAUST?	10
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Figure 2. Navigation screen for Shelley Jackson's *my body - a Wunderkammer* (Jackson, 1997). To enter the story the reader clicks on one of the body parts that are within the outlined boxes.

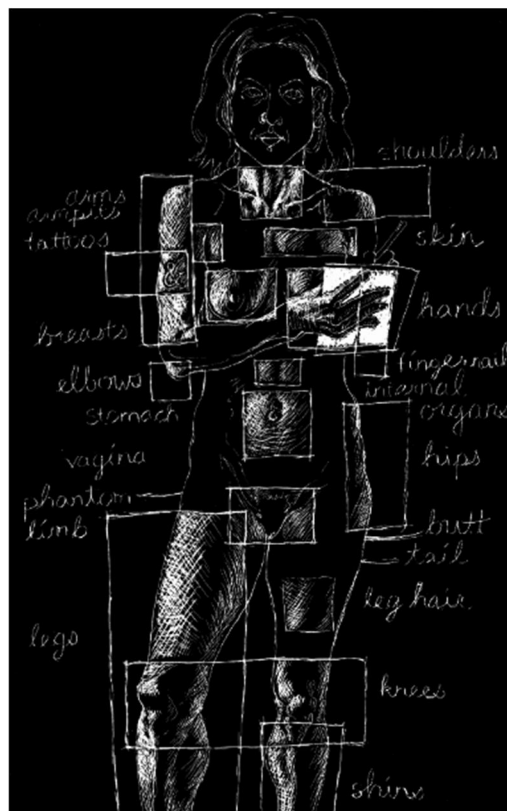


Figure 3. Screenshot of text from Jackson's *my body*. Readers advance through the story by clicking on one of the highlighted word(s) or phrase(s).

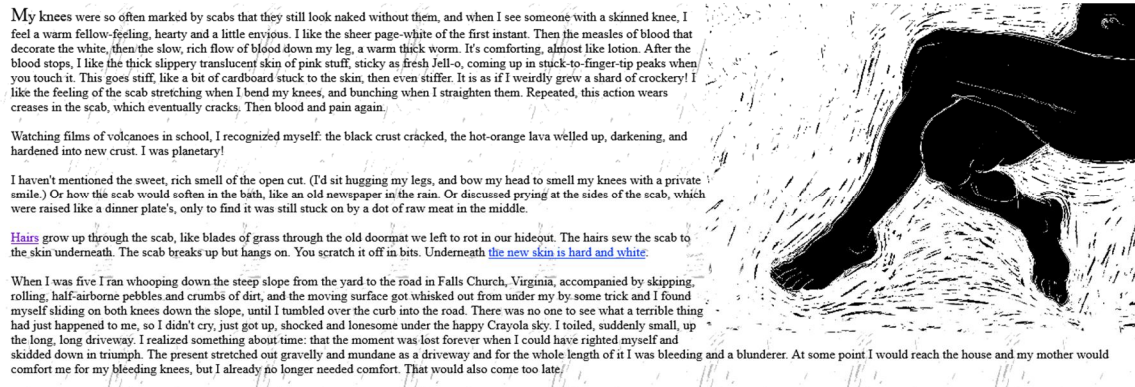
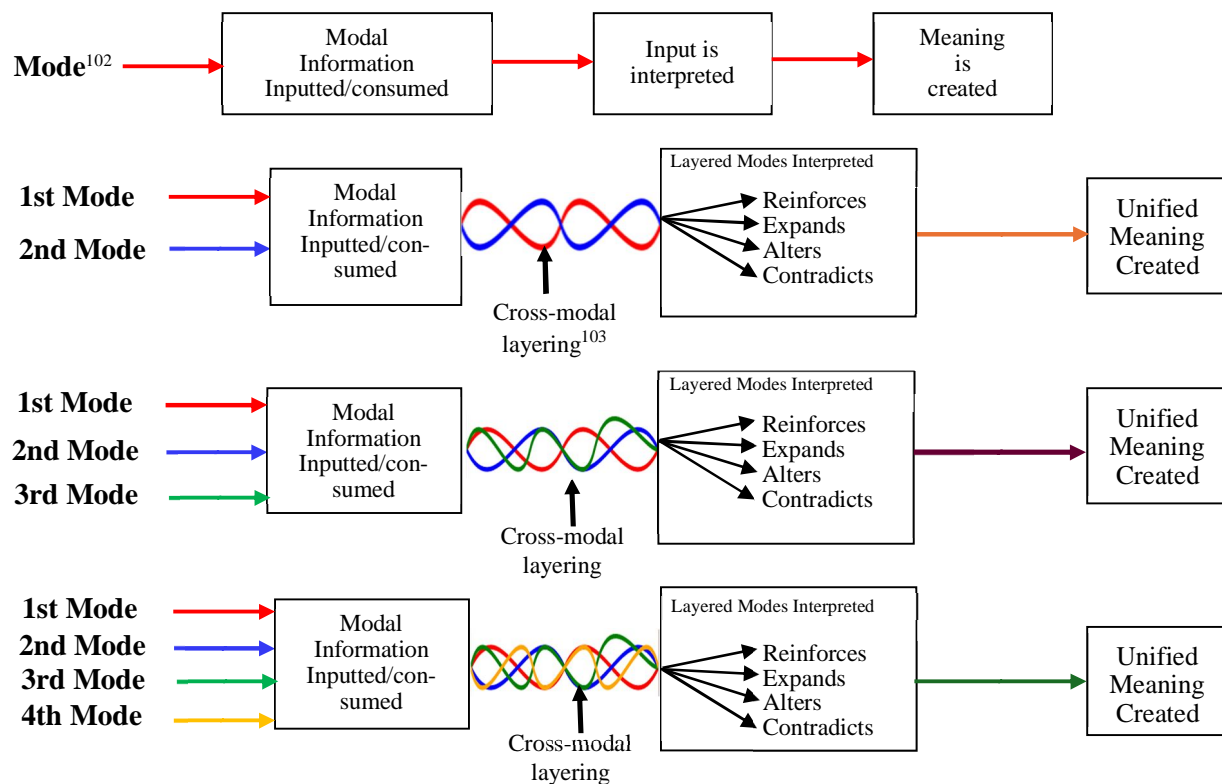


Figure 4. The graph below was created to demonstrate what I believe is the process an individual uses when viewing/consuming information or literature with multimodal elements.



¹⁰¹ The process of the cognitive and neurobiological processes involved in interpretation and understanding of a mode or multiple modalities is beyond the scope of this dissertation. This dissertation is interested, however, in how a reader creates meaning through the use of their sociological, cultural, and experiential understanding of both each individual mode and the synergistic meaning that is created after the layering of each modality upon the other(s).

¹⁰² This process is also recursive in nature with an individual's thinking/understanding changing as each mode is layered upon the others.

Figure 5. The home screen for the *MetaMaus* DVD. This dissertation focuses on Book Two in *The Complete Maus*, along with the linked reference material.



Figure 6. The home screen for *The Complete Maus* on the *MetaMaus* DVD. To access each chapter, the reader clicks on the graphic above the chapter name.

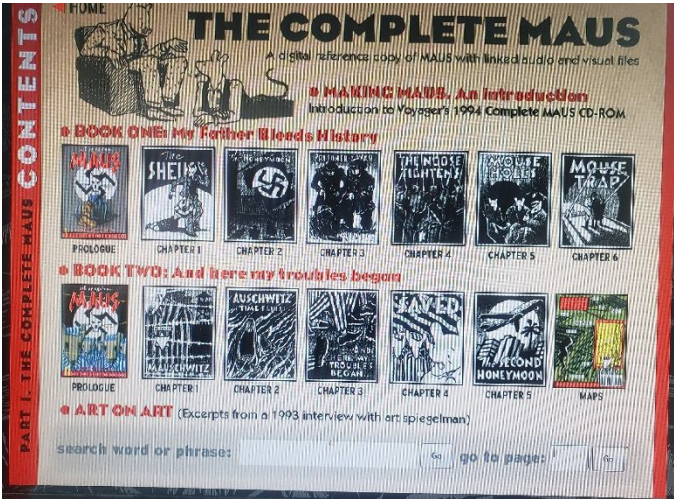


Figure 7. This example of a Higher-level mediated action table for an imaginary dataset appeared in Norris's *Systematically Working with Multimodal Data: Research Methods in Multimodal Discourse Analysis*.

Time stamp in video at the beginning of a higher-level mediated action	Brief description of a higher-level mediated action
00:00:00	Friends greeting (entering the café and meeting each other)
00:03:10	Friends ordering coffee
00:05:23	Friends ordering a cake
Many more time stamps listed on this side of the table	Many more higher-level mediated actions listed on this side of the table
01:05:10	Friends greeting (leaving the café and each other)

Figure 8. from *Maus II*, Ch. 2, pg. 201, panel 5.

At least fifteen foreign editions are coming out. I've gotten 4 serious offers to turn my book into a T.V. special or movie. (I don't wanna.)
In May 1968 my mother killed herself. (She left no note.)
Lately I've been feeling depressed.

Figure 9. from *Maus II*, Ch. 2, pg. 203, panel 8.

Can I mention this, or does it completely louse up my metaphor?

Figure 10. from *Maus II*, Ch. 2, pg. 203, panel 2.

*NADJA MOULY SPIEGELMAN.
BORN 5/13/87

Figure 11. from *Maus II*, Ch. 2, pg. 203, panel 5

FRAMED PHOTO OF PET CAT. REALLY!

Figure 12. from *Maus II*, Ch. 2, pg. 202, panel 2

I-I never thought of reducing it to a message. I mean, I wasn't trying to CONVINCE anybody of anything. I just wanted-

Figure 13. from *Maus II*, Ch. 2, pg. 202, panel 4

Maybe EVERYONE has to feel guilty. EVERYONE! FOREVER!

Figure 14. from *Maus II*, Ch. 2, pg. 202, Panel 7.

So, whaddya WANT - a bigger percentage? Hey, we can talk.

Figure 15. from *Maus II*, Ch. 2, pg. 202, panel 7.

I want...
ABSOLUTION.
No...No... I
want...I want-
my MOMMY!

Figure 16. from *Maus II*, Ch. 2, pg. 234, panel 4

AAWOOWWAH!

Figure 17. from *Maus II*, Ch. 2, pg. 234, panel 4

AWOOW

Figure 18. from *Maus II*, Ch. 2, pg. 202, panel 8

WAH!

Figure 19. from *Maus II*, title page



Figure 20. from *Maus II*, Ch. 2, pg. 232, panel 1

TRENCHES...HAH!
THOSE ARE GIANT
GRAVES THEY'RE
FILLING IN! ...

Figure 21. from *Maus II*, Ch. 2, pg. 234, panel 7.

PSHT

Figure 22. from *Maus II*, Ch. 2, pg. 201, panel 5.



Figure 23. from *Maus II*, Ch. 2, pg. 202, panel 1.



Figure 24. from *Maus II*, Ch. 2, pg. 202, panel 4.



Figure 25. from *Maus II*, Ch. 2, pg. 202, panel 4.



Figure 26. from *Maus II*, Ch. 2, pg. 201, panel 1.



Figure 27. from *Maus II*, Ch. 2, pg. 220, panel 5.



Figure 28. from *Maus II*, Ch. 2, pg. 220, panel 7.



Figure 29. from *Maus II*, Ch. 2, pg. 221, panel 8.



Figure 30. from *Maus II*, Ch. 2, pg. 202, panel 6.



Figure 31. from *Maus II*, Ch. 2, pg. 202, panel 8.



Figure 32. from *Maus II*, Ch. 2, pg. 232, panel 5.



Figure 33. from *Maus II*, Ch. 2, pg. 211, panel 5.

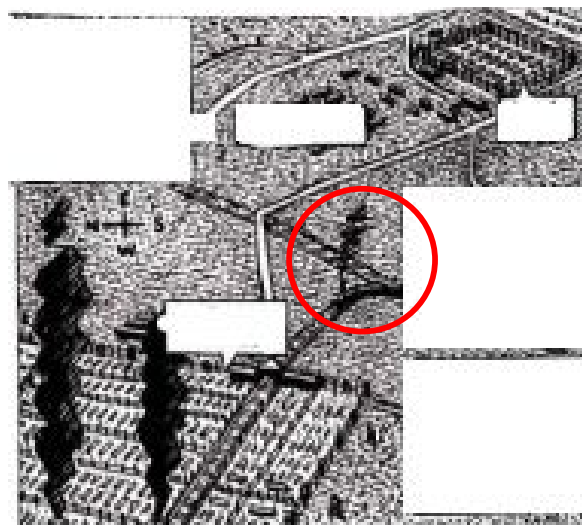


Figure 34. from *Maus II*, Ch. 2, pg. 220, panel 6.



Figure 35. from *Maus II*, Ch. 2, pg. 234, panel 4.



Figure 36. from *Maus II*, Ch. 2, pg. 234, panel 7.



Figure 37. from *Maus II*, Ch. 2, pg. 201, panel above panel 1.



Figure 38. from *Maus II*, Ch. 2, pg. 220, panel 6.

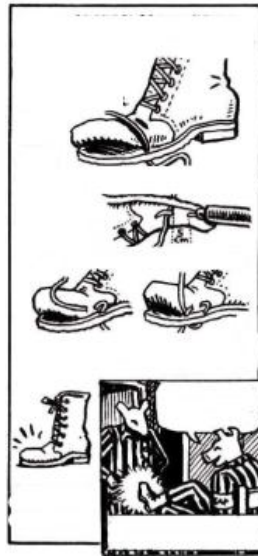


Figure 39. from *Maus II*, Ch. 2, Pg. 234, panel 6.



Figure 40. from *Maus II*, Ch. 2, pg. 223, panel 4.



Figure 41. from *Maus II*, Ch. 2, pg. 223, panel 2.



Figure 42. from *Maus II*, Ch. 2, pg. 234, panel 6.



Figure 43. Screenshot of *The Complete Maus*, Book II, Ch. 2, pg. 201 landing page.

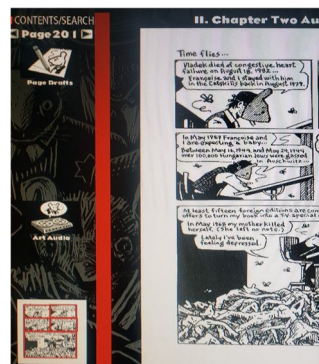
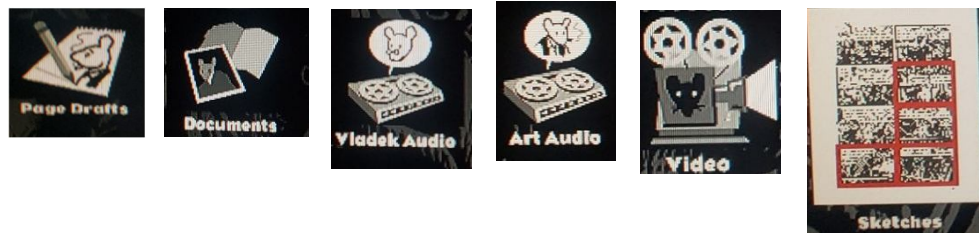


Figure 44. Screenshots of *The Complete Maus*, Subarea Icons.



The icon/hyperlinks are in order (from L to R) of their location in the navigation column (refer to Appendix I to see where each icon is within the column). The type of material each links to is listed below each icon.

Figure 45. Screenshot of *The Complete Maus*, Book II, Ch. 2, pg. 201, Page Drafts, Image 2.

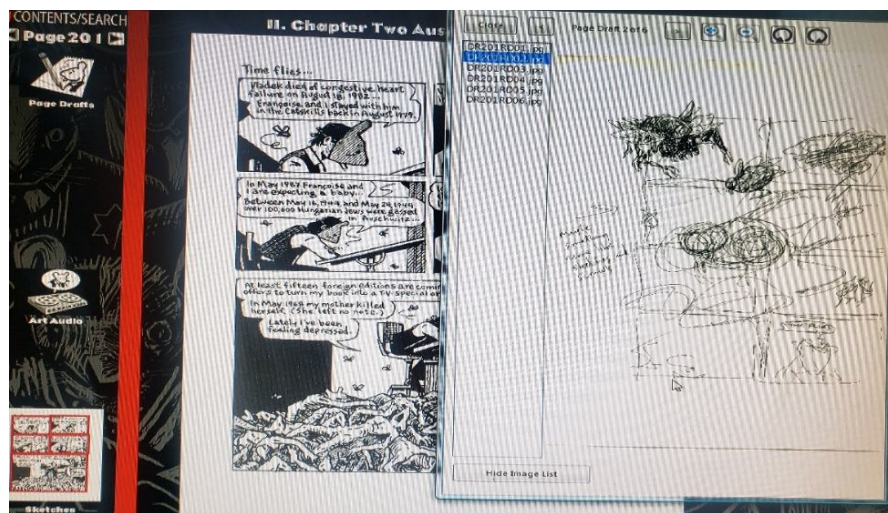


Figure 46. Screenshot of *The Complete Maus*, Book II, Ch. 2, pg. 201, Art Audio.

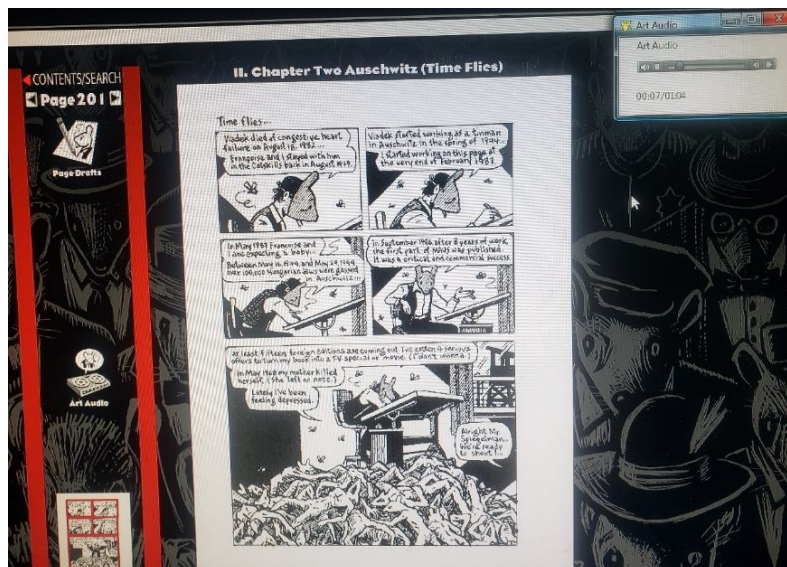
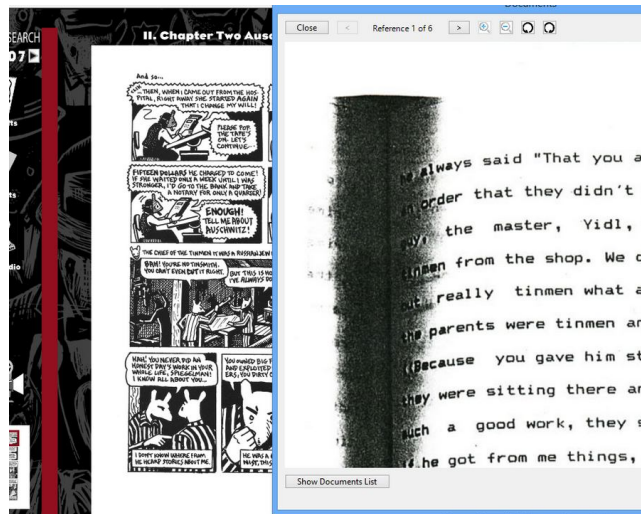


Figure 47. from Scott McCloud's *Understanding Comics: The Invisible Art*, pg.68, panel 3.



Figure 48. Screenshot of *The Complete Maus*, Book II, Ch. 2, pg. 207, Documents.



APPENDIX B: MULTIMODAL INTERACTIVE ANALYSIS METHODOLOGY

1. Define Research Objectives and Questions

- **Identify Objectives:** Clearly define what you aim to investigate using MIA.
- **Formulate Research Questions:** Develop specific research questions that can be addressed through multimodal data.

2. Literature Review

- **Review Relevant Studies:** Study existing literature on multimodal analysis and the specific topic of interest.
- **Identify Gaps:** Determine gaps in the current research that your study can address.

3. Select Data Sources

- **Choose Data Sources:** Identify sources of data such as social media, interviews, videos, photographs, personal interactions, etc.

4. Data Collection

- **Collect Data:** Gather the data from chosen sources (Gather video recordings of social interactions, collect relevant artifacts and documents, record contextual information about the interaction setting)
- **Ensure Ethical Considerations:** Obtain necessary permissions and ensure ethical standards are maintained, particularly with sensitive data.

5. Data Preparation

- **Transcribe and Annotate:** Transcribe audio and video data if necessary.
 - Record and/or annotate data.
 - Note non-verbal actions, gestures, and movements.
 - Also note the use of objects and the environment.
- **Organize Data:** Data sources are viewed multiple times.
 - Categorize and organize data by modality.
 - Identify Higher-level Actions:
 - Analyze the overall goals or purposes of the interaction.
 - Determine the main activities or tasks being performed.
 - Break Down into Lower-level Actions:
 - Identify smaller, constituent actions that make up the higher-level actions.
 - Note how these lower-level actions contribute to overall interaction.
 - Note Intersubjective Relationships:
 - Identify instances of modal redundancy, complementarity, or contradiction
 - Note Mediational Means:
 - Identify tools, technologies, or cultural artifacts used in the interaction.

6. Data Analysis

- **Select Analytical Tools and Techniques:** Choose appropriate analytical tools and techniques for each data modality (e.g., qualitative coding for text, visual analysis for images, acoustic analysis for audio).
- **Conduct Modal-Specific Analyses:** Analyze each modality separately using appropriate methods. For example: A) **Textual Analysis:** Content analysis, thematic analysis, discourse analysis; B) **Visual Analysis:** Semiotic analysis, visual content analysis; C) **Audio Analysis:** Acoustic analysis, conversation analysis.
 - Analyze Modal Density:
 - Examine the intensity and complexity of different modes used (e.g., speech, gesture, gaze, posture)
 - Determine which modes are foregrounded or backgrounded in different parts of the interaction.
 - Analyze Inter-semiotic Relationships:
 - How do different modes work together to create meaning?
 - Analyze Frozen Actions:
 - What is the role of material objects and the environment in the interaction?
 - Examine how these "frozen" elements shape and are shaped by the ongoing interaction.
 - Analyze Mediational Means:
 - How do these mediational means facilitate or constrain the interaction?
 - Analyze Scales of Action:
 - Consider how micro-actions relate to broader social practices.
 - What are the possible connections between immediate interactions and larger sociocultural contexts?
- **Iterative Analysis:** Engage in an iterative process where the analysis of one modality informs the analysis of others, refining insights continuously.
- **Interactive Tools:** Use interactive software and tools that allow for dynamic interaction with data (e.g., NVivo, Alasia, MAXQDA).
- **Integrate Findings:** Synthesize the findings from the different modalities to provide a holistic view. Look for patterns, correlations, and insights that emerge from the integration, and highlight relevant features.
- **Draw Conclusions:**
 - Interpret the meanings and significance of the multimodal interactions.
 - Relate findings to relevant theoretical frameworks or research questions.
- **Reflect on Methodological Choices:**
 - Consider how analytical decisions may have influenced interpretations.
 - Acknowledge limitations and potential areas for further investigation.

7. Interpretation and Synthesis

- **Interpret Results:** Interpret the integrated findings in the context of your research questions and theoretical framework.
- **Develop Themes:** Identify overarching themes and narratives that emerge from the multimodal data.

8. Validation and Reliability

- **Triangulation:** Validate findings through triangulation by comparing results from different modalities and checking for consistency.
- **Peer Review:** Seek feedback from peers or experts in the field to ensure the reliability and validity of your analysis.

9. Presentation of Findings

- **Multimodal Presentation:** Present your findings using multiple formats to reflect the multimodal nature of your analysis (e.g., combining text, images, and audio/visual components in your report or presentation).
- **Visualizations:** Use visualizations to represent complex data interactions and findings (e.g., charts, graphs, multimedia presentations).

10. Discussion and Conclusion

- **Discuss Implications:** Discuss the implications of your findings for theory, practice, and future research.
- **Conclude:** Summarize the key insights and contributions of your research.

11. Reflection and Iteration

- **Reflect on Process:** Reflect on the research process, challenges encountered, and lessons learned.
- **Iterate if Necessary:** Based on reflections and feedback, iterate on your analysis if further insights can be gained.

APPENDIX C: MULTIMODAL LITERARY ANALYSIS METHODOLOGY

1. Define Research Objectives and Questions

- **Identify Objectives:** Clearly define what you aim to investigate using MLA.
- **Formulate Research Questions:** Develop specific research questions that can be addressed through multimodal data.

2. Literature Review

- **Review Relevant Studies:** Study existing literature on multimodal analysis and the specific topic of interest.
- **Identify Gaps:** Determine gaps in the current research that your study can address.

3. Select Data Sources

- **Choose Data Sources:** Identify sources of data such as social media, interviews, videos, photographs, personal interactions, etc.

4. Data Collection

- **Collect Data:** Data sources are initially read/viewed with a focus on the higher-level mediated messages conveyed in the literature.
- **Establish Broad Overview:** After an initial reading/viewing of the research materials the meaning of the text selection is determined.
- **Ensure Ethical Considerations:** Obtain necessary permissions and ensure ethical standards are maintained, particularly with sensitive data.

5. Data Preparation

- **Transcribe and Annotate:** Transcribe audio and video data if necessary.
- **Organize Data:** Data sources are viewed multiple times, and the resulting information is taken through the steps below¹⁰³.
 - Categorize and organize data by modality.
 - Identify Higher-level Actions:
 - Analyze the overall goals or purposes of the interaction.
 - Determine the main activities or tasks being performed.
 - Break Down into Lower-level Actions:
 - Identify smaller, constituent actions that make up the higher-level actions.
 - Note how these lower-level actions contribute to the overall interaction.
 - Note Inter-semiotic Relationships:
 - Identify instances of modal redundancy, complementarity, or contradiction

¹⁰³ In MLA, data organization is dictated by the medium that the literature is presented. The types of electronic literature used in this dissertation are A) An electronic text that is like a traditional printed book in its presentation. B) An interactive text that is like a video or animated short film in terms of presentation.

6. Data Analysis (This is done at the microlevel)

- **Determine focus of Microanalysis and Select Areas of Examination:** Taken into consideration the research questions, smaller sections of the text are selected for in-depth microanalyses.
- **Select Analytical Tools and Techniques:** Choose appropriate analytical tools and techniques for each data modality (e.g., qualitative coding for text, visual analysis for images, acoustic analysis for audio).
- **Conduct Modal-Specific Analyses:** Analyze each modality separately using appropriate methods. For example: 1) Textual Analysis: e.g., Content analysis, thematic analysis, discourse analysis. 2) Visual Analysis: e.g., Semiotic analysis, visual content analysis. 3) Audio Analysis: e.g., acoustic analysis, conversation analysis.
 - **Areas of Focused Analysis:** When doing the analysis for each of the three areas listed above, particular attention will be paid to:
 - **Modal Density:**
 - Determine which modes are foregrounded or backgrounded in different parts of the interaction.
 - Examine the intensity and complexity of different modes used (e.g., speech, gesture, gaze, posture)
 - **Inter-semiotic Relationships:**
 - Analyze how different modes work together to create meaning.
 - **Frozen Actions:**
 - In texts that are presented in video/animation, analyze the representation of material objects and the environment in the interaction.
 - In texts that are presented in video/animation, examine how these "frozen" elements shape, and are shaped by the ongoing interaction.
 - In texts that are presented as a digital version of the book, examine how the use of panels, negative space, and page layout shape and are shaped by the interaction being presented.
 - **Mediational Means:**
 - Identify affordances and limitations of the technology, presentation used, and the cultural knowledge/artifacts referenced or needed to understand the text.
 - Analyze how these mediational means facilitate or constrain understanding.
- **Integrate Findings:** Synthesize the findings from the different modalities to provide a holistic view. Look for patterns, correlations, and insights that emerge from the integration. Highlight relevant features keeping in mind what was determined to be the higher-level meaning of that section of text.

7. Interpretation and Synthesis

- **Interpret Results:** Interpret the integrated findings in the context of your research questions and theoretical framework.
- **Develop Themes:** Identify overarching themes and narratives that emerge from the multimodal data.
- **Draw Conclusions:**
 - Interpret the meanings and significance of the multimodal interactions.
 - Relate findings to relevant theoretical frameworks or research questions.
- **Reflect on Methodological Choices:**
 - Consider how analytical decisions may have influenced interpretations.
 - Acknowledge limitations and potential areas for further investigation.

8. Presentation of Findings

- **Multimodal Presentation:** Present your findings using multiple formats to reflect the multimodal nature of your analysis (e.g., combining text, images, and audio/visual components in your report or presentation).
- **Visualizations:** Use visualizations to represent complex data interactions and findings (e.g., charts, graphs, multimedia presentations).

9. Discussion and Conclusion

- **Discuss Implications:** Discuss the implications of your findings for theory, practice, and future research.
- **Conclude:** Summarize the key insights and contributions of your research.

10. Reflection and Iteration

- **Reflect on Process:** Reflect on the research process, challenges encountered, and lessons learned.
- **Iterate if Necessary:** Based on reflections and feedback, iterate on your analysis if further insights can be gained.

APPENDIX D: GRAPHIC NOVEL/COMICS GRAMMAR TERMS AND CONCEPTS

(The chart below is an edited amalgamation of material taken from the following sources Bateman et al., 2017; *Graphic Novel/Comics Terms and Concepts*, 2024; "Knowing the Rules of Comic Page Layouts," 2020; Piekos; Reid, 2023)

Layout

Background: Provides additional, subtextual information for the reader.

Bleed: An image that extends to and/or beyond the edge of the page.

Frame: The lines and borders that contain the panels.

Gutter: The space between framed panels.

Graphic weight: A term that describes the way some images draw the eye more than others, creating a definite focus. Examples of ways that this can be done include the use of color, shading, and/or size. May also be created using patterns or repeated marks.

Insert Panels: Small panels inside other panels.

Joining Balloon-to-Balloon: Balloons directly joined together are generally viewed as being part of the same thought process.

Onomatopoeia: Graphically distinct text floating near to a source of sound or situation designating a sound directly. Onomatopoeia provides sound effects for the reader to get a mental picture of what sounds are resonating in the setting. These are often words like BOOM! THOK! & CRASH

Panel: This refers to one square on the comic page that contains a piece of action or conversation in endless variety. Unlike other visual media, transitions are instantaneous and direct, but the exact timing of the reader's experience is determined by focus and reading speed.

Panel Scale: The amount of content within a panel.

Small Dialogue/Big Balloon: A reduced font size is used when a character mutters, talks to themselves, or speaks sheepishly, or whispers. A lot of space is left in the balloon.

Sound Effects: Noises that aren't speech are displayed in type styles that should help convey the intensity and properties of the noise.

Splash: This type of panel is one that occupies the entire page. Usually reserved for the beginning, end, or climax of the story, splashes are generally in color and are impressive.

Speed/Motion Lines: Lines added to or around some object indicating other trajectories of motion or intrinsic motion (e.g., trembling)

Tier – This term defines a row of panels, usually three (or two in manga) per page. A distinct segment of the comic, containing a combination of image and text.

Text

Bold or Bold Italic: Dialogue (usually single words and phrases) that are in bold. May also be in italics. Both conventions are used to show that a character is emphasizing a word or phrase.

Breath Marks (AKA, Whiskers, Fireflies, Crow's Feet): Usually three little dashes stacked vertically that come before and after some sort of cough or sputter. Word(s) with the breath marks may be italicized, lowercase or bold.

Burst Balloons (AKA, Shout Balloons): Are used when someone is screaming. Dialogue is often bold with certain words enlarged or underlined for even more emphasis.

Captions: These are boxes containing a variety of text elements, including scene-setting, description, etc. There are four types of captions found in comic books:

1. Internal monologues captions – used to express the characters “internal dialogue” with themselves. These are usually written in italics.
2. Location and time captions – used to set the scene for the reader and indicate time and location.
3. Editorial Captions – A way to narrate/explain for the reader important details.
4. Spoken Captions – Used to show speech that is emanating from a character that isn’t currently in the frame or panel. These are identified by their enclosing speech/quotation marks.

Double Dash: There is no Em or En dash in American comics. It's a double dash and it's only used when a character's speech is interrupted, or in place of a semicolon, which is not used in comics.

Ellipses: The ellipsis is used when a character's speech trails off.

Emotional State Markers: lines added around or near a character designated a mental state such as surprise, anger, etc.

Speech Balloons: These enclose dialogue and come from a specific speaker’s mouth; they vary in size, shape, and layout and can alternate to depict a conversation.

Special-effects Lettering: This is a method of drawing attention to text; it often highlights onomatopoeia and reinforces the impact of words such as bang or wow.

Text and Typography: written language appearing will generally also make use of typography for additional subjective meanings, separating characters, authorial voice, etc.

Question Mark (Exclamation Point): Questions marks with exclamation points show that a character is shouting the question.

APPENDIX E: TRANSCRIPT OF MAUS

Date: 8/22/2024

Name of Source: *MetaMaus* DVD, *The Complete Maus* CD-ROM reproduction

Section of Source: Book II: And Here My Troubles Began, Chapter 2: Auschwitz (time flies)

Page Numbers: Pages 201-203, 211, 220-223, and 232-234

Source Citation: Spiegelman, A. (2011). *MetaMaus*, First edition. New York : Pantheon Books.

Narrative Summary of Selected Material:

The first part of the chapter features Art discussing the commercial success of *Maus I* and his resulting anxiety and sense of guilt related to its success. In addition, he tries to fill in some of the gaps of what it was like in Auschwitz by talking to Pavel, his therapist, who is also a Czech Jew and survivor of Terezin and Auschwitz because his father's reluctance to talk about certain things.

After this introduction, the narrative returns to Vladek story. He explains what he did and how he survived his initial arrival at Auschwitz. Vladek describes the harsh conditions and cruelty they endure, including violent beatings, lack of food and sanitation, and constant fear of selection for the gas chambers. Vladek also explains his adaptability and resourcefulness in the various ways in which he manages to acquire extra food and avoid or remove himself from situations that present a greater risk of him being sent to his death.

While at Auschwitz, Vladek learns that Anja is still alive and in the women's part of Auschwitz (also known as Birkenau). Vladek eventually works out a way to communicate with Anja through an intermediary. From this individual, he learns that Anja is sickly, very weak, and not as resourceful as he is. As a result, she is struggling to survive. Using this intermediary, Vladek is able to continue to communicate with Anja, as well as send extra food and provide services that aid in her survival.

At the end of the chapter, Vladek relates how, as the war is nearing its end, the Nazis resorted to more extreme measures to implement the final solution. We also learned of Vladek's second wife leaving him and the strain that caring for Vladek is placing on art and his partner, François.

Characters (in order of appearance)

- | | |
|----------------------------|------------------------------------|
| 1. Art (A) | 14. Female Birkenau Prisoner (FBP) |
| 2. Off page Assistant (OA) | 15. Anja (An) |
| 3. Male Newscaster (MN) | 16. Auschwitz Prisoner (AP) |
| 4. Female Newscaster (FN) | 17. Françoise (F) |
| 5. Israel Newscaster (IN) | |
| 6. Capitalist (C) | |
| 7. Pavel (P) | |
| 8. Yidl (Y) | |
| 9. Vladek (V) | |
| 10. Kapo in Charge (KC) | |
| 11. Gestapo Guard (GG) | |
| 12. Shoemaker (S) | |
| 13. Bad Kapo (BK) | |

Note on Annotations

- The numbering of each illustration/image panel will follow the normal reading pattern in the English language (Beginning at the top, moving from left to right as you work your way down the page).
- The order that text is recorded as being spoken will follow the same as above.
- Text that may appear within a panel, but cannot be attributed to a particular speaker, will be noted as such.
- Any textual representations of a sound made by a character will be shown as (s=Wah!) within the dialogue of the person who made the sound. Textual representations of sound that have been made by something other than a character, will be shown as (s=PSHT. This will be followed by a brief explanation of what makes the sound.)
- Words that are typed in all capital letters appear differently in relation to the rest of the dialogue/text to create emphasis. This was created through the text being slightly larger, slightly italicized, and/or darker than the other text it appeared with.
- Punctuation such as !, ., ?, and ... are assumed to have the same meaning as they do within standard English (unless otherwise noted).
- Within the DVD version of *Maus*, that is the focus of this dissertation, the novel appears on the screen as a single page, which the reader must click on an arrow to advance to the next page of the narrative.
 - Appearing next to each page, readers may find one or more icons that, if clicked on, take the reader to research and reference material related to that page and its creation.
 - These icons will give the reader access to preliminary sketches; the audio recordings of Vladek and other interviews; family photos, reference, and historical documents; video recordings of reference and research material.
 - This additional material will be included in the transcript immediately following the transcript of that page. Additionally, all material that appears within this space will be available for viewing or listening by clicking on the links provided within the dissertation. These links will take the reader to this material that has been made available to my readers through online storage.
- Hyperlinks to sound and video files will be included within the transcript.

Pg. 201 (The entirety of page 201 reads as an aside/interior dialogue by Art.)

Time flies¹⁰⁴... (No speaker. This is written above the first Panel)

Panel 1

A: Vladek died of congestive heart failure on August 18, 1982... François and I stayed with him in the Catskills back in August 1979.

Panel 2

A: Vladek started working as a tinman in Auschwitz in the spring of 1944... I started working on this page at the very end of February 1987.

Panel 3

¹⁰⁴ Due to the use of hand lettering within *Maus* the above does not represent the way the text appears within the novel. However, spelling, punctuation, and grammar have been reproduced as it appears within the text.

A: In May 1987 François and I are expecting a baby... Between May 16, 1944, and May 24, 1944, 100,000 Hungarian Jews were gassed in Auschwitz...

Panel 4

A: In September 1986, after 8 years of work, the first part of MAUS was published. It was a critical and commercial success.

Panel 5

A: At least 15 foreign editions are coming out. I've gotten 4 serious offers to turn my book into a TV special or movie. (I don't wanna.) In May 1968, my mother killed herself. (She left no note.) Lately I've been feeling depressed.

OA: Alright Mr. Spiegelman... We're ready to shoot!..

Pg. 202

Panel 1

FN: Tell our viewers what message you want them to get from your book?

A: A message? I dunno...

Panel 2

A: I-I never thought of reducing it to a message. I mean, I wasn't trying to CONVINCe anyone of anything. I just wanted to –

MN: Your book is being translated into German...

Panel 3

MN: Many younger Germans have had it up to HERE with Holocaust stories these things happen before they were even born. Why should THEY feel guilty?

A: Whom am I to say?...

Panel 4

A: But a lot of the corporations that flourished in Nazi Germany are richer than ever. I dunno... Maybe EVERYONE has to feel guilty. EVERYONE! FOREVER!

IN: Okay... Let's talk about Israel...

Panel 5

IN: If your book was about ISRAELI Jews, what kind of animal would you draw?

A: I have no idea... porcupines?

C: Excuse me...

Panel 6

C: Artie, baby. Check out this licensing deal. You get 50% of the profits. We'll make a million. Your dad would be proud!

(C is holding up a poster that reads MAUS: You read the book, Now buy the VEST!)

A: s=Huh?

Panel 7

C: So, whaddya WANT a bigger percentage? Hey, we can talk.

A: I want... ABSOLUTION. No... No... I want... I want... My MOMMY!

Panel 8

FN: Could you tell our audience if drawing MAUS was cathartic? Do you feel better now?

A: (s=WAH!)

Pg. 203

Panel 1

A: (s=whew) they're gone. Sometimes I just don't feel like a functioning adult.

Panel 2

A: I can't believe I'm gonna be a father and a couple of months.* My father's ghost still hangs over me.

(The asterisk above appears in Arts dialogue and indicates a text note at bottom right of panel. It reads *Nadja Mouly Spiegelman. Born 5/13/87)

Panel 3

A: it's 9:30 p.m. already I've gotta head uptown for my appointment with Pavel.

(Art to reader as an aside – Pavel is my shrink. He sees patients at night.)

Panel 4

(Art to reader as an aside – He's a Czech Jew, a survivor of Terezin and Auschwitz. I see him once a week.)

Panel 5

(Art to reader as an aside/interior dialogue – His place is overrun with stray dogs and cats.)

P: Hi Art. Come on in.

(Art to reader as an aside – Can I mention this, or does it completely louse up my metaphor?)

Panel 6

P: So, how are you feeling?

A: Completely messed up. I mean, things couldn't be going better with my "career," or at home, but mostly I feel like crying.

Panel 7

A: I can't work. My time is being sucked up by interviews and business propositions. I can't deal with it.

Panel 8

P: But even when I'm left alone, I'm totally BLOCKED. Instead of working on my book I just lie on my couch for hours and stare at a small grease spot on the upholstery.

(Art to reader as an aside – framed photo of pet cat. Really!)

Pg. 211

Panel 1

A: Tell me about mom. Were you in touch with her in Auschwitz.

V: Ya...

Panel 2

V: In the BEGINNING I knew only her number, and that she was there.. in Birkenau.

Panel 3

V: This I found out by workers from Birkenau that passed where I was teaching English.

Panel 4

A: Where was Birkenau?

V: The camp was a PART from Auschwitz...

Panel 5

(Features the following text boxes that indicate different parts of a map that include Auschwitz and Birkenau. Areas noted are the Sola River, workshops, and camp extension; Auschwitz I; Auschwitz II Birkenau)

Panel 6

V: It was maybe 2 miles to go from Auschwitz to Birkenau. There it was much more big.

Panel 7

V: in Auschwitz we had, say, 20,000 prisoners, and Birkenau was at least five times so many.

Panel 8

V: Birkenau was even more bad. It was 800 people, in a building made for 50 horses.

Panel 9

V: in Auschwitz we had, say, 20,000 prisoners, and Birkenau was at least five times so many.

Panel 10

V: there it was just a death place for Jews waiting for gas... And there it was Anya.

Pg. 220

Panel 1

V: So... In the tin shop I still had the same story with Yidl.

Y: Only one apple for me today? Is business bad, Mr. Capitalist?

V: What happened to the shoemaker who worked in there?

Panel 2

Y: A lot of Polish prisoners were sent to camps inside the Reich. They took some of MY boys too.

Panel 3

V: I ran to the capo in charge from all the shop. Do you need a new shoemaker?

KC: Sure. The S.S. took the old one away, but they're still bringing shoes in!

Panel 4

V: You know, I've been a shoemaker since childhood.

KC: you don't LOOK like a shoemaker to me... You're a TINMAN!

Panel 5

V: Do I have to have it written on my forehead?

KC: Alright, then... Fix THIS!

Panel 6

(This Panel is a long vertical text box that goes to the bottom of the page. The text box features five illustrations that provide a visual representation for Vladek's explanation of the repair process and how he had learned how to. Vladek is not visually represented in the Panel, but he is providing the narrative.)

V: I learned a little shoe fixing watching how they worked when I was with my cousin in Miloch, there in the ghetto shoe shop. To fix such an open soul I knew to take a double thread smeared with wax.... Make then a whole and push the thread half way only. And on the upper part put two holes even to the soul... Bring the thread then through THESE holes. Across the thread from the top and bottom, BOTH ends through a new hole in the soul and repeat so until the shoe is closed.... And so made, you can't even SEE it has stitches!

Panel 7

KC: You're better than our LAST shoemaker!

V: You see? It's good to know how to do EVERYTHING!

Pg. 221

Panel 1

V: So, now I was a SHOEMAKER. I had here a warm and private room where to sit...

Y: Ha! I knew you were an expert tinman, but I never knew you had so many other talents!

V: And here I didn't have anymore to worry will Yidl give me out.

Panel 2

V: Officials liked better if I fix their shoes than to send to the big shop inside camp.

GG: This is a new boot. I don't want your repair to show.

V: It's a bad rip... I'll do my best.

Panel 3

GG: If it doesn't look brand-new by tomorrow you will be here anymore. Understand me?

V: I knew how to fix soles and heels, but what this Gestapo wanted, and needed a specialist.

Panel 4

V: So, going from work, I hid this boot to sneak it to a real shoemaker in Auschwitz.

Panel 5

V: Can you fix this? I'll give you a day's ration of bread.

AP: For a day's ration of bread I can fix anything!

V: I watched carefully how he did, so next time I can save myself such a bread.

Panel 6

V: Day I had the boot ready for this Gestapo.

GG: Hmm

Panel 7

V: He left the boot and went without one word.

Panel 8

V: And he came back with a whole sausage.

GG: You did a good job. HAH! Those are giant graves there filling in!...

V: You know what this was, a whole sausage? You can imagine! I cut with a shoe knife and ate so fast I was a little sick after.

Pg. 222

Panel 1

(In the first two panels Vladek and Art are walking together.)

V: I couldn't anymore make a business smuggling with Polish workers from here as a shoemaker, but still I was well-off...

Panel 2

V: The Gestapo that I fixed his boot recommended me, so his friends wanted I'll fix also their shoes and paid me in food.

Panel 3

V: I shared sometimes to the Kapo in Charge. (This is written above the third panel. Vladek is narrating the story for Art)

I just organized for eggs – want one?

KC: What a friendly Jew! Sure – we can cook them on my heater.

V: If you want to live, it's good to be friendly. (This is written in a text box at the bottom of the panel and is Vladek offering Art general advice)

Panel 4

KC: And here's a little bread for our meal.

V: Great! Say, what are all those new buildings there putting up over there?

Panel 5

KC: Just some new workshops. Their expanding the Union Werke munitions factory...

Panel 6

KC: And they're putting up some barracks to move some women workers from Birkenau over here.

Panel 7

V: M-My wife is in Birkenau. Maybe I could get her into one of those barracks!

KC: Hah! Impossible! It would cost a fortune in bribes!.

V: He unwrapped some cheese and ate himself a piece. (This is written in a text box and is narration for Art)

Panel 8

V: Please, can I have that piece of paper?

KC: Well, sure. I can let you have the paper – but not the cheese!

V: I needed to write over Anja! (This is written in a text box and is narration for Art)

Pg. 223

(The first panel is Vladek and Art still walking together.)

Panel 1

V: Even paper was hard to have there. My friends came always to me when they needed. I found and saved. For the toilet most use the piece from their clothes or their hand.

A: Why didn't other people say paper?

V: Ach! You know how most people are!

Panel 2

(In panels 2 through 4, Vladek's dialogue is written as a text box and serves as narration for Art)

V: So... I wrote over Anja that now I am a shoemaker, and I heard here about these new barracks...

Panel 3

V: And Mancie took it. She was so good, always she took.

Panel 4

V: On the back from my letter Anja wrote how much she wanted only to come to such a buried near to me.

Panel 5

V: Anja's barrack was maybe a thousand girls with a bad Kapo what hit anybody that came near.

BK: Sneak! I saw you take a second piece of bread!

FBP: No. I –

V: She had leather boots – not wood. They were in a very bad shape but really leather. (This is written in a text box and is narration for Art)

Panel 6

An: N-Nice boots – it's a pity that the souls are coming apart.

BK: So? What do you care?

Panel 7

An:. You could send them to my husband. He's a shoemaker in Auschwitz....

BK: Oh, really

V:. So, she arranged the boots over to me. (This is written in a text box and is narration for Art)

Panel 8

V: Of course I fix very nice this use, and the Kapo was very different with Anja.

Panel 9

BK: That soup can is too heavy for you. Come rest in my room until the Appel.

V: ... Very different. (This is written in a text box and is narration for Art)

Pg. 232

Panel 1

V: What are they doing over there – digging trenches in case the Russians attack?

AP: (AP's entire

Panel 1

V: What are they doing over there – digging trenches in case the Russians attack?

AP: (AP's entire dialogue both in panels 1 and 2 are different in order to create emphasis. In this panel, his words have added emphasis that has been indicated through much darker lettering)
Trenches – HAH! Those are giant GRAVES there filling in!...

Panel 2

AP: It started in May and went on all summer. They brought Jews from hungry – too many for their ovens, so they dug those big cremation pits.

Panel 3

V: The holes were big, so like the swimming pool of the Pines Hotel here. And train after train of Hungarians came.

Panel 4

V: And those what finished in the gas chambers before they got pushed in these graves, it was the LUCKY ones.

The others had to jump in the graves while still they were alive...

Panel 5

V: Prisoners what worked there poured gasoline over the live ones and the dead ones. And the fat from the burning bodies they scooped in court again so everyone would burn better.

Pg. 233

Panel 1

A: Jesus.

V: (s=ACH!) It's 2:30. Look how the time is flying. And it's still so much to do today...

Panel 2

V: It's dishes to clean, dinner to defrost, and my PILLS I haven't yet counted.

A: I don't get it... Why didn't the Jews at least TRY to resist?

Panel 3

V: It wasn't so easy like you think. Everyone was so starving and frightened, and tired they couldn't BELIEVE even what's in front of their eyes.

Panel 4

V: ... And the Jews lived always with HOPE. They hoped the Russians can come before the German bullet arrived from the gun into their head and – (s=oops!)
(s=CRASH!)

Panel 5

V: Oi! You see how my head is? It's my favorite dish now broken!
A: It's only a DISH!... Why didn't they try to take just one Nazi with them?

Panel 6

V: In some spots people DID fight... But you can kill maybe one German before they kill fast 100 from you. Then it's EVERYONE dead.

Panel 7

V: ... AND this way it was ALSO everyone dead. Nu? DON'T THROW AWAY! I can glue still together that plate.

Panel 8

A: I guess of do the dishes now.
V: No. You can defrost out the turkey legs... You only would break me the REST of my plates.

Pg. 234

That night... (No speaker. This is written above the first Panel)

Panel 1

A: (s=Whew.) He's asleep at last!
F: It's amazing how hard it is to spend a whole day with him. He just radiates so much tension.

Panel 2

F: Poor guy. I guess he's worse than usual because of Mala...
A: Nah, He's ALWAYS that way... It's one of the reasons she DID run off.

Panel 3

F: Do you think they'll get back together?
A: W

Panel 4

V: (s=AAWOOWWAH! This is in large, block letters that form a sort of wave.)
F: Wh-what's Jesus.
A: I sure HOPE so. Otherwise he's OUR responsibility, and I don't think I can take him for too much longer.

Panel 5

A: He's moaning and asleep again. When I was a kid I thought that was the noise ALL grown-ups made while they slept.

V: (s=AWOOO! This is in much smaller block letters in the previous panel and disappears under Art's dialogue bubble.)

Panel 6

E: (s=sigh.) It's so peaceful here at night. It's almost impossible to believe Auschwitz ever happened.

A: (s=Uh-huh.) OUCH!

Panel 7

A: But these damn bugs are eating me alive!




E: Me too.

(s=PSHT. The sound of bug spray being sprayed. Also written in large block letters similar to the ones used for Vladek's moans.)


Panel 8

A: C'mon. Let's go inside and read... It's getting kinda chilly out anyway.

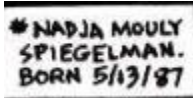
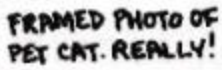
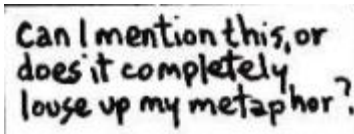
APPENDIX F: FIELD NOTES ON TEXT FOR MAUS

Date: 1/12/2024 Name of Source: <i>MetaMaus</i> DVD, <i>The Complete Maus</i> CD-ROM reproduction Section of Source: Book II: And Here My Troubles Began, Chapter 2: Auschwitz (time flies) Page Numbers: Pages 201-203, 211, 220-223, and 232-234 Mode: Text <u>Text Log Note:</u> Punctuation such as !, ., ?, and ... are assumed to have the same meaning as they do within standard English (unless otherwise noted).				
<u>Reference Point</u> (page #; panel #)	<u>Mode</u>	<u>Description</u>	<u>Evidence of Mode</u>	<u>Initial Analysis</u>
201; above panel 1	Text	Caption	Ex. (Time flies...) Subtitle of chapter. Also suggest the amount of time that has passed since the publication of <i>Maus I</i> and the second volume.	Possible tie into the prevalence of flies in this section. There are victims of the Holocaust. Art is imagining that the bodies of these victims are present.
201; 1-5	Text	Dialogue	Provides background information about historical events that are to be covered in this chapter and what has happened since the publication of the first book.	Background information needed to advance story.
201; 5	Text	Internal monologue	Ex. (I don't wanna.) and (She left no note.) These are statements that indicate Art's feelings related to the previous lines of dialogue concerning not wanting to turn the novel into a TV special or movie, and statement of fact related to his mother not leaving a suicide note when she died.	Shows character/speaker's feelings towards the subject of conversation and answers possible questions of the reader.
201; see Evidence column	Text	Font Size	Ex. "WAH!", also see the above examples of sound effects. (Image below – panel 8)  (Image below – panel 6)  	Size in these two examples create emphasis for the reader and communicate the structure of a familiar genre i.e., advertising ¹⁰⁵ . The ! also shows strong emotion.

¹⁰⁵ While not the case here, advertisements can also be considered a mode of communication as well.

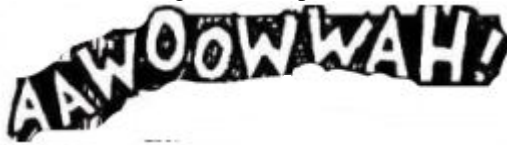



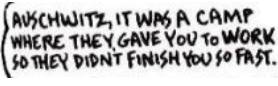
201; see Evidence column	Text	Font	See the illustration immediately above this.	In comics and graphic novels, most are hand-lettered and tend to be written in all capital letters to increase readability due to the format.
202; 8	Text	Sound effects	Ex. “WAH! (Image below – panel 8) 	Onomatopoeia, readers able to “hear” the sound. Brings the scene to life.
201; 5 and 202;1	Text	Use of informal contractions in Dialogue	Ex. 201;5 wanna 202;1 dunno	Replicates speech patterns and make character more relatable and believable.
202;1 and 5	Text	Dialogue	Ex. 202;1 dunno... 202;5 porcupines... ...	Replicates speech patterns to indicate hesitation, filler words/sounds, and other verbal idiosyncrasies that would be difficult to transcribe otherwise (i.e., Uh-huh and the use of ellipses ¹⁰⁶ to indicate pauses).
202;2, 3, and 4	Text	Slightly larger all capital letters	Ex. 202;2 Convince 202;3 Here and They 202;4 Everyone	Indicates extra emphasis on those words. Helps to get across characters emotion/feelings. Ex. “I wasn’t trying to CONVINCE anybody of anything.”
202;2 and 4	Text	Bolded	Ex. 202;2 Convince 202;4 Everyone	See above. More forceful, assertive, and possibly louder tone. Ex. “Maybe EVERYONE has to feel guilty. EVERYONE! FOREVER!”

¹⁰⁶ see Appendix C.


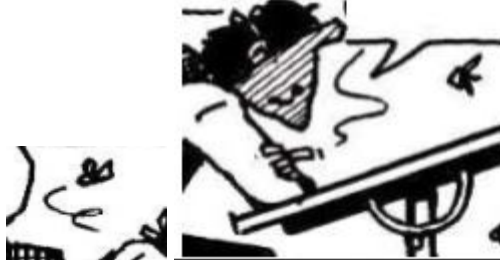


203;5	Text	Internal monologue	<p>Ex. (I don't wanna.) and (She left no note.)</p> <p>These are statements that indicate Art's feelings related to the previous lines of dialogue concerning not wanting to turn the novel into a TV special or movie, and statement of fact related to his mother not leaving a suicide note when she died.</p>	Shows character/speaker's feelings towards the subject of conversation and answers questions of the reader.
203;2 and 8	Text	Aside (Internal Panel ¹⁰⁷)	<p>(Image below – panel 2)</p>  <p>(Image below – panel 8)</p> 	The author, in these two pieces of text, provides the reader with information that they may want to know (ex. his daughter's name and date of birth). Both pieces of this information lie outside the narrative that his being related on this page. By doing this, each of these Art violates the fourth wall ¹⁰⁸ that exists within literature and takes the reader out of the narrative.
203;5	Text	Meta—commentary		As in the examples above, this violates the fourth wall. However, this also provides the reader with some meta-commentary from the author related to the writing process and his thinking as a relates to the structuring of the story.

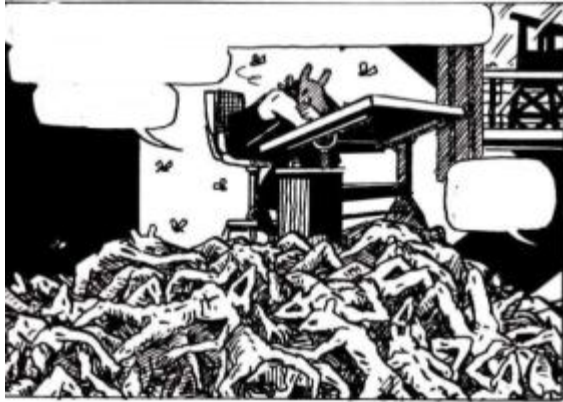





¹⁰⁷ see Appendix C.






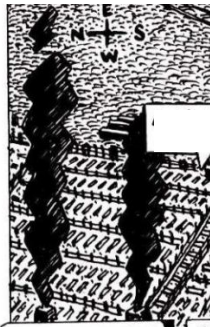
¹⁰⁸ The fourth wall is the imaginary barrier that separates a narrative from its readers/audience. When a writer, or actor, acknowledges the audience and their existence in some way, the fourth wall is broken. By doing this, there is an acknowledgment that the narrative is a story being viewed by an outside audience.

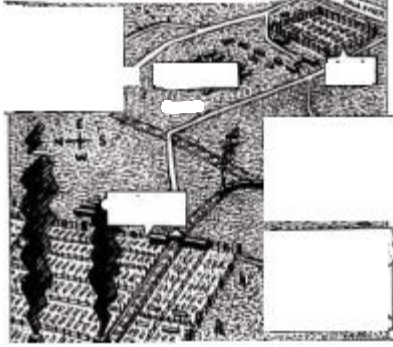

233;3, 6, and 7	Text	Font size and choice	<p>(Image below – panel 4)</p>  <p>(Image below – panel 6)</p>  <p>(Image below – panel 7)</p> 	<p>As with the previous example, these aid in the reader “hearing” what is going on. Additionally, some of these sounds extend beyond the panel itself (ex. SLAP) indicating that the sound is very loud. Since these words are printed as white block letters, they are noticeably clear against the black-and-white of their panels.</p>
233;5	Text	Font size	<p>(Image below – panel 5)</p> 	<p>The diminished size of Vladek’s nightmare moan is a smaller size. It is not as loud as the previous panel.</p>
Throughout book	Text	Dialogue Sentence structure	<p>Ex. (Image below – 211;8)</p> 	<p>The sentence structure/broken English used by Vladek signifies his otherness and status as an immigrant for whom English is a second language.</p>

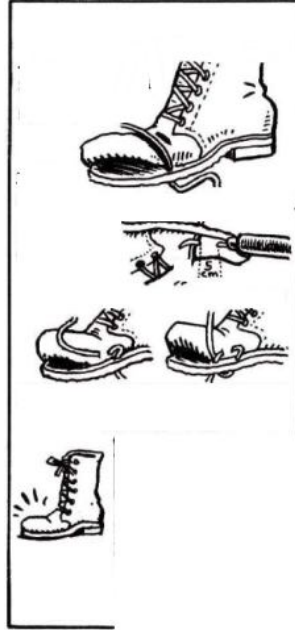
APPENDIX G: FIELD NOTES ON IMAGE FOR MAUS

Date: 1/12/2024 Name of Source: <i>MetaMaus</i> DVD, <i>The Complete Maus</i> CD-ROM reproduction Section of Source: Book II: And Here My Troubles Began, Chapter 2: Auschwitz (time flies) Page Numbers: Pages 201-203, 211, 220-223, and 232-234 Mode: Image				
<u>Reference Point</u>	<u>Mode</u>	<u>Description</u>	<u>Evidence of Mode</u>	<u>Initial Analysis</u>
201;5	Image	Panel of Art with Guard Tower in window		The presence of the guard tower in the window of Art's studio
201;5	Image	Movement, motion/speed lines from fly and cigarette		The lines following the roughly drawn fly and the smoke from the cigarette indicate movement.
201;5	Image	Flies hovering above the bodies		Adds to the sense that these corpses are real
201;5	Image	The mouse mask tied and covering Art's face. The 5 o'clock stubble on face – lack of care?		Art is drawn with a mask. Reinforces duality. Majority of the time the characters are mice or other animals; this makes it clear that the animals represent real people.

201;5	Image	corpses of Holocaust victims		Art is slumped over his table, head in hands. The table is sitting upon a pile of corpses – presumably of Holocaust victims.
202;1, 2, and 4	Image	Masks on modern day people	<p>(Image below – panel 1)</p>  <p>(Image below – panel 2)</p>  <p>(Image below – panel 4)</p> 	See above. We are in modern-day yet the reporters (panel 1, 2, and 4) are also portrayed in masks
202;1 and 4	Image	Corpses to ask our questions	<p>(Image below – panel 1)</p>  <p>(Image below – panel 4)</p> 	Callousness or indifference of reporters - step on bodies to ask questions. Bottom – Head in hands indicates frustration/confusion

202;1 and 5 203;1	Image	Head in, hands, three lines in front of face demonstrate surprise or shock. Art is shrinking in size.	(Image below – 202;1)  (Image below – 202;5)  (Image below – 203;1) 	Art shrinking as he is grilled. Hints at his uncomfortableness and feelings of inadequacy
202;6	Image	?		Use of the ? to indicate some confusion
211;5	Image	Compass points		The cardinal points of the compass
211;5	Image	Map		Dark smudges in the picture appear to be coming from a fire or smokestacks. Indicates smoke.

211;5	Image	Map		Large map of an area that Vladék lived during the Holocaust. Shows the location of one perhaps camp or town, and another town a short distance away.
221;6	Image	Look of surprise or fear? On Vladék's face. Three marks emanating from boot, sole hanging down, look on pig face.		Image appears on the same page as two above and would be read due to layout after prior. Pigs grin and eyebrows narrow indicate malevolence or challenge. Three lines above boot draws attention to disrepair. Vladék's arched eyebrow and handout the side – concern
220;4	Image	Illustrations on how to repair a shoe.		Visual instructions on how to repair a leather boot



220;7

Image

Halo around shoe,
emotion of joy on face,
hands on hips
satisfaction
or I told you
so-ness



Halo that appears around the shoe - shininess or newness. location as a smaller panel inserted partially in image, assumption is it's been repaired and looks new. Pig with shoe, smiling and eye is closed/raised hinting at happy/pleased.





221;4



Image

Securing boots to body



Vladek tying SS boot around midsection. Following image shows him removing from under shirt. This is how he snuck it in.

221;8	Image	Halo, size of Vladek's eyes and the sausage		Again halo/negative space around head disbelief or excitement potentially over size of sausage in hand. Support wide-open eyes.
232;4	Image	Bodies being dragged and dropped.		Unclear as to why there is smoke or what person with hose is doing – shape coming out front suggest water.
232;5	Image	Victims being burned alive and their agony		Provoke strong emotional response. Close-up on faces and limiting the number of victims allow Artist to communicate horror more effectively. The size and very sharp contrast both within the image and with the other images on the page also creates a strong focal point.
234;1	Image	Art, hand on head – frustrated? François on deck with cigarette smoke		Hand on face, perhaps being frustrated with taking care of his father. Crosshatching - darkness

				and lateness of hour.
234;4	Image	<p>Speed</p> <p>Motion lines next to Françoise head as she turns it at the sound. Glow around cigarette as has it lit, shadow/negative space of face, shadow of François – suggest light on porch</p>		<p>Size of the special effect text reflects loudness of Vladék's moan, Françoise's shock/surprise is demonstrated through motion line as she turns head, sharp contrast between deep shadow and light from lighter, crosshatching on background conveys time. Very bright white/glow around flame demonstrates illumination from lighter.</p>
234;7	Image	<p>Motion lines of Art's head as he sprays insect repellent – this assumption is based on falling insect in next panel. Françoise arm wrapped around herself on shoulder – concern?</p>		<p>Special effects lettering and sound effects of spray can, strong contrasts of whites with the cloud of insect repellent, dark contrasts reinforce nighttime, annoyance of insects, spray plus Art's motion line and presence of flying and dead/dying insects and other frames.</p>

234;8

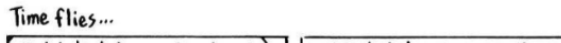

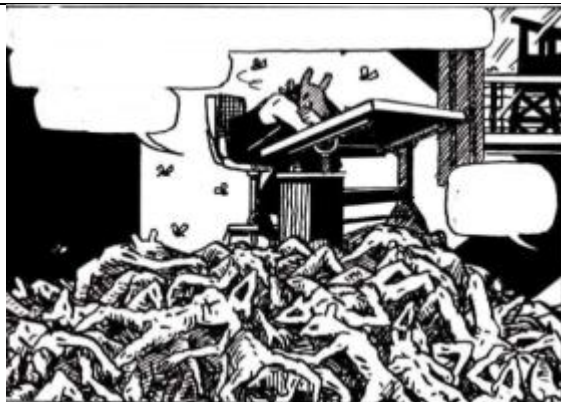
Image


Dead and
falling
insects with
motion lines.
One outside
of panel.
Françoise
and Art
holding
hands

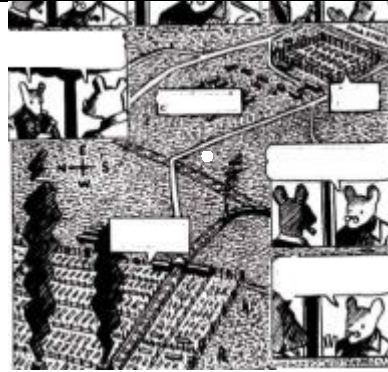


See above

APPENDIX H: FIELD NOTES ON LAYOUT FOR MAUS

Date: 1/12/2024				
Name of Source: <i>MetaMaus</i> DVD, <i>The Complete Maus</i> CD-ROM reproduction				
Section of Source: Book II: And Here My Troubles Began, Chapter 2: Auschwitz (time flies)				
Page Numbers: Pages 201-203, 211, 220-223, and 232-234				
Mode: Layout				
<u>Reference Point</u>	<u>Mode</u>	<u>Description</u>	<u>Evidence of Mode</u>	<u>Initial Analysis</u>
201; above panel 1	Layout	The words “Time flies...” And “That night...” Are placed outside of any of the panels on the page. NOTE: if the evidence of mode contains a graphic that is self-explanatory, then I did not include a description in this column for those images.	(Image below – 201; above panel 1) 	The placement of the words outside of any panel on the page indicates an ascent narrator (presumably Art) connecting the narrative from the previous page to the narrative on the current page in order to provide a bridge or logical connection for the reader due to the fact that the former does not continue the previous pages' narrative.
234; above panel 1			(Image below – 234; above panel 1) 	
201;5	Layout	See image		This frame becomes the focal point due to its size (1/2 pg.) Sharp contrast with solid black on left edge, under window, guard tower, etc. also strong image of Art's drawing table and chair sitting atop a pile of corpses. Provoke strong emotional response.

20 (wall, under the window and 2;6	Layout	See image		<p>While a small frame, there is a certain impact of this. Even using modern standards where marketing tie ins are everywhere, this seems particularly insensitive and shocking. Does have an emotional impact and cause the reader to really reflect on what people think at times.</p>
202;8	Layout	See image.		<p>The layout of this image does a couple things for the reader. First it reinforces the idea that Art feels closed in (the reporters forming a tight ring around him) expecting answers to questions concerning <i>Maus I</i>, the Holocaust itself, and the impact of the war/anti-Semitism. Expectation that Art himself, survivors, and the Jewish people. Reinforces Art's insecurity (his shrinking and loud cry). Combine with the 4 emotional state markers that are above and to the right of his upturned face.</p>
211;5	Layout	See image		<p>While this does not quite meet the</p>



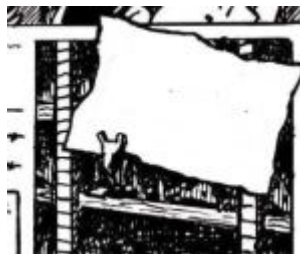
definition of a splash in terms of size (see Appendix C). This frame does take up a considerable amount of room on the page (roughly 2/3). It is rather impressive and does Mark a key point in the story. In addition, the size and is from a wide aerial view. Because of that it has significant graphic weight answers as a focal point for the reader.

223;4 and 6 Layout See image

(Image below – 64;4)



(Image below – 64;6)





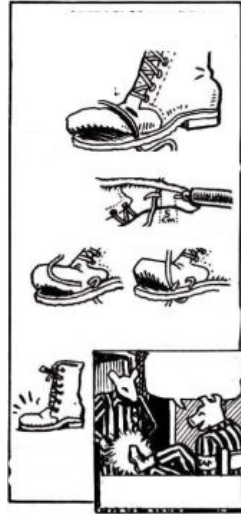
The large white panels represent a hybrid speech balloon and caption box. The edges are irregular and roughly shaped to that of smooth out and reused paper that Art is writing his notes to Anja on.

232;5 Layout See image




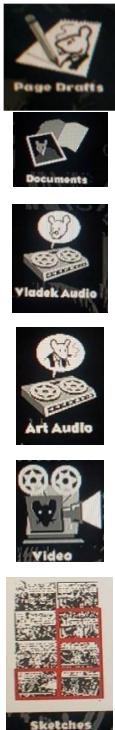
This is the largest of the five frames on this page (It occupies 1/3 of the page). While it has a similar contrast to the others on the same page, the graphic impact is intense. The very black background, the victims being

			burned in shadow and clearly in pain contrasted with the bright white of the flames. Grab and hold the reader's attention. They communicate their message very clearly.
234;4	Layout	See image	 <p>A reader is drawn to this panel, and the panel below, its size or the amount of contrast – because both of these illustrations are the same size as the other ones on the page and the contrast is similarly dark. What draws a reader's attention to these two panels is the use of onomatopoeia and sound effects through the special effects lettering that represent the slap, the spraying of the insecticide, and Vladek's moaning. The special-effects lettering does have contrast when compared to the dark background of the images on this page. This, combined with the fact that the lettering extends beyond the frame itself, helps to add weight to the images.</p>
234;6	Layout	See image	 <p>The reader's attention is drawn</p>
220;4	Layout	See image	

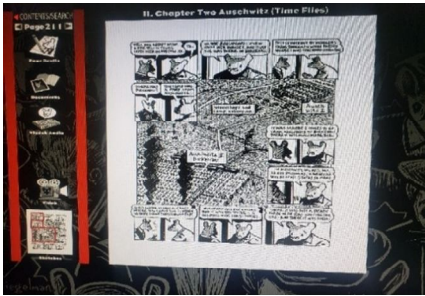
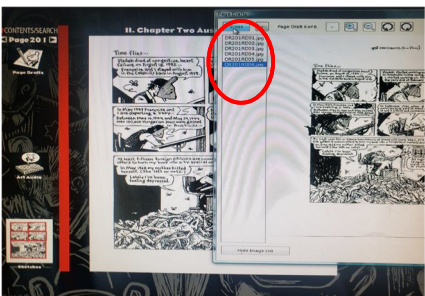
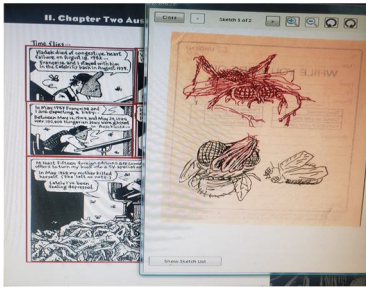
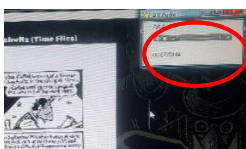


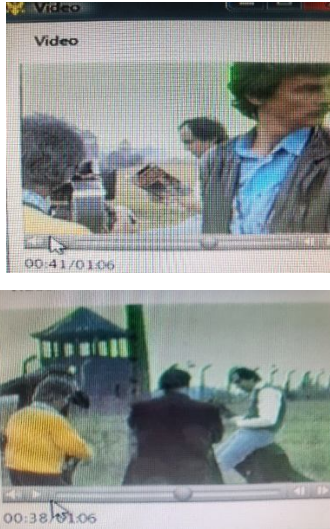
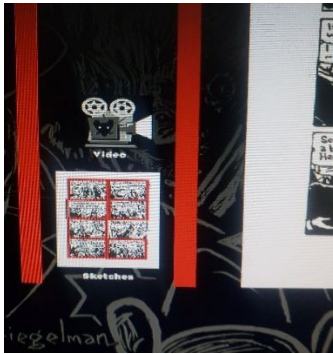
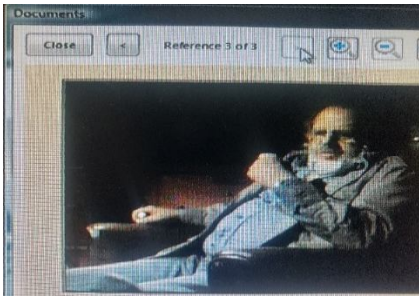
to this panel through its scale. This helps to create a graphic weight for this illustration. This illustration represents about 1/3 of the page it is on. In addition, compared to the rest of the panels on the same page, this has a sharp contrast due to a lot of white space being present. Also, even without the words it is easy to follow the “instructions” for how to repair a pair of boots.

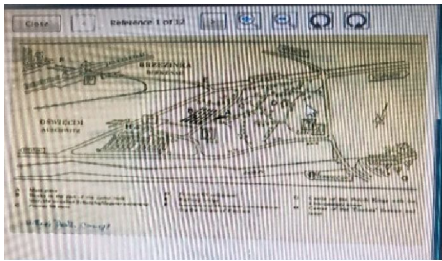
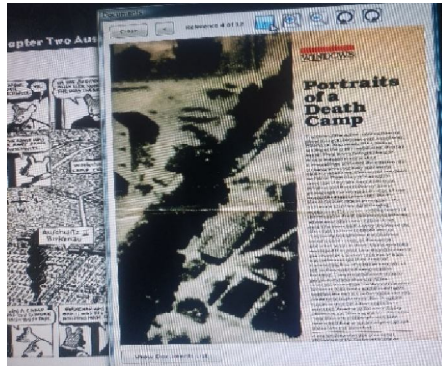
APPENDIX I: FIELD NOTES ON INTERACTIVITY (LINKS) FOR MAUS

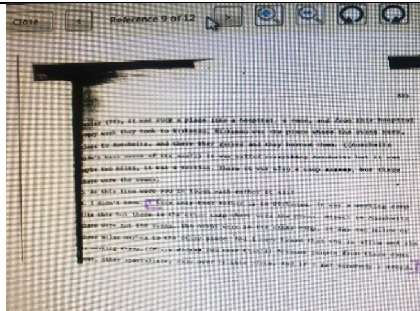
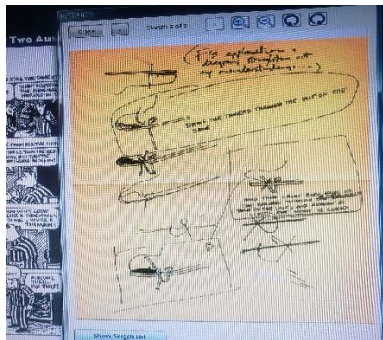
Date: 1/12/2024 Name of Source: <i>MetaMaus</i> DVD, <i>The Complete Maus</i> CD-ROM reproduction Section of Source: Book II: And Here My Troubles Began, Chapter 2: Auschwitz (time flies) Page Numbers: Pages 201-203, 211, 220-223, and 232-234 Mode: Interactivity (Hyperlinks)				
<u>Reference Point</u> ¹⁰⁹	<u>Mode</u>	<u>Description</u>	<u>Evidence of Mode</u>	<u>Initial Analysis</u>
<p>The columns are in the following order:</p> <p>Top row from L to R - Pgs. 201-203, and pg. 211.</p> <p>Middle row from L to R - Pgs. 220-223.</p> <p>Bottom row from L to R - Pgs. 232-234</p>	Inter-active	Each of the icons shown in the 11 columns in the Evidence column are hyperlinks to material related to the creation of the page that it appears next to (the page is to the right of the column on screen).		<p>The category above does not apply to the next 2 rows. The icon/hyperlinks are in order from the top down; and the type of material each links to are below.</p> 

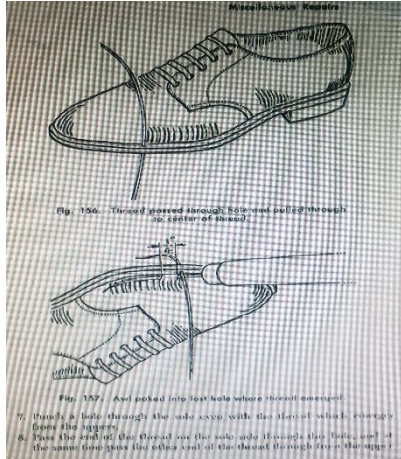
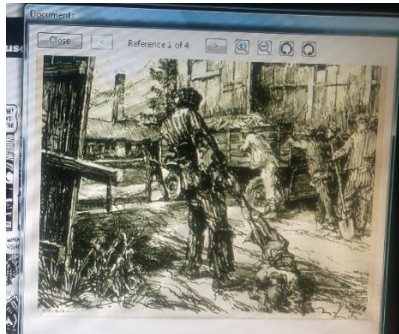
¹⁰⁹ Reference Points will be formatted as follows: page #; name of subarea; # of item (if more than one is included in the subarea).

211; Landing page				The image to the left is an example of the landing page that a reader would encounter with each page as they read <i>The Complete Maus</i> on the DVD <i>MetaMaus</i> .
201; Page Draft; 6	Inter- active, Text, Image	Draft of that page. The red circle is around the drop-down menu that connects to all of the possible selections in that particular sub area for that page.		Identifies the drop-down menu that would pieces of material were in that particular subsection, and their names.
201; Sketches; 1	Inter- active, Image	Initial sketches of flies for possible inclusion on page 201.		Somewhat interesting, but really added nothing to the meaning and understanding created
201; Art Audio	Inter- active, Sound, Speech	 Screenshot of pop-up window to plan audio clip of either Art or Vladek. These are the only two individuals featured in the audio clips.	Transcript of Audio clip - This section was kind of not one that I planned on doing obviously when I was planning the book. But it was the only way I could move forward to make the obstacles manifest. So, I had to do this thing that now had a different layer of present than anything that happened before. There was a present with Vladek and me talking and the past with his story. All of a sudden, we now had a kind of super present and the super present is done with certain devices. For one thing, the upper and lowercase writing, which is used only a few times earlier in the book. It's used when you very first enter into the story entrance of the story, and a couple of captions like, "I want back to visit my father," or something like that. And that implies that all of that upper and lower case	In the other sections where I transcribe the audio, I delete the screenshot of the pop-up window since it is really the same thing with the exception of who's talking. The audio clips were by far the most useful in terms of adding to and extending meaning. This is especially true of Art's audio because it did seem to explain various choices that he had made in the creation of the novels, and these often improved the reader's

			<p>comes from a different present. The other indicators were that we're moving closer to present where there are people, so that these masks are more obviously masks of mice, on what's obviously humans wearing them. But I needed some device to allow myself access to this particular anecdote, which was necessary for me to just kind of get it out of the way and get back to business.</p>	<p>understanding and the meaning taken from that section of the novel.</p>
202; Video	Inter-active, video, sound, color	Two stills from a video clip of Art Spiegelman visiting Auschwitz (this is an assumption)		<p>Very disappointing. The two video clips in the analysis selection offered very little in the way of extending, confirming, altering, or contradicting what was already there.</p>
202; Sketches; Landing Page	Inter-active, icons, navigation, color	The icon of the film projector takes the reader to the video clip that is associated with this page. The red squares on the sketches icon links to various sketches of each frame that is outlined in red.		<p>Navigation icons were great particularly because they resembled or clearly communicated to the reader what type of material you were going to find and what it related to.</p>
203; Docs., 3	Inter-active, image	Photograph of Art's psychiatrist, Pavel, who is also a Holocaust survivor.		<p>Still image of Pavel. It seemed to confirm what I thought he looked like</p>

203; Art Audio	Inter-active, sound, speech	Transcript of Audio clip (Since image of audio clip is the same as the one shown for pg. 201, all other images for audio clips have been omitted) - In the second book, there is a sequence of me going to a shrink who is also a survivor, which is why I chose him. I Figured if one is going to go through the transference process, I better choose somebody who has gone through something similar, so you know it would just go faster. And the reason I went specifically was not to correct a dysfunctional sexual problem or any specific neurosis, I just saw it as a business expense. Pavel was incredibly useful in being able to continue the conversation with my father with somebody much more articulate and empathic and get very specific and very detailed information about life in Auschwitz.		Explains and gives better context of who Pavel is. There's some contradiction. He says it is not a therapy session and that he was using it to help fill in what Vladek hadn't or wasn't able to, yet the conversation that's in the novel feels very much like a therapy session. To me, it also seems somewhat like a slight dig at his father. Getting another perspective is fine, but the comments on wanting to talk to somebody who's more articulate and empathetic seems to telegraph his feelings unresolved feelings about his father.
211; Docs., 1	Inter-active, map, image	Rough map of what I believe is Auschwitz		Appears to be a map of what I believe is Auschwitz.
211; Docs., 4	Inter-active, text, image	Magazine article discussing the death camps. The article is not complete, nor does it contain any the citation		Part of the research that Art did for the novels. It is incomplete and you can't tell where I came from so there's no way to look it up
211; Docs., 9	Inter-active, text	Transcript of interviews with Vladek.		These were really interesting to have. I wish they had been

			<p>organized, laid out a little more clearly but it was interesting to see the details that Art did include, and the ones that he left out. It also reinforced what art mentions in other places that Vladek often retold the same stories, but many times there were differences in what happened. Addresses the idea that memory is malleable.</p>
211; Vladek Audio	Inter-active, sound, speech	<p>Transcript of Audio clip - <u>Vladek</u>: It was cold, everything Auschwitz. But it was maybe two miles. It was a section, there was also a camp but there the ovens.</p> <p><u>Art</u>: At this time were you in contact with mother at all?</p> <p><u>Vladek</u>: I knew only that mother is in Birkenau. It was a working camp like this, but there in the other camp, there were the ovens. Direct in Auschwitz there were not the ovens. The ovens were the other camp. It was two or three maybe to the other place. And I had heard that she's alive and she's working there. Because other specialists came over to this place, and if I met somebody I asked this somebody</p>	<p>Interesting, but doesn't necessarily add or expand anything that's in the novels.</p>
220; Docs.; 2	Inter-active, illustration, text	<p>Illustration with handwritten notes on how to repair a shoe</p>	 <p>Illustration from shoe repair manual. Sort of reinforces what in the novel – Vladek's description of how to repair shoe.</p>

220; Docs.; 4	Inter- active, illustra- tion, text	Illustration from a textbook on how to repair a shoe		See above
223; Vladek Audio	Inter- active, sound, speech	<p>Transcript of Audio clip - While mother was in Birkenau, she had a representative, a woman, and she very severe, very bad woman, and she was hitting everyone around what came close to her. This representative was not a German representative. She was representative on the block but she was also a prisoner, but she had more privileges as a prisoner because they came from the German part. And they were choosing out that they would watch the other prisoners. So she had a pair of boots and they were torn and she liked them very much, and she couldn't get them repaired there because there is not a place to go to shop and repair it. So mother approached to her because she knew that I am already see there as a shoemaker. She approached her and told her send over this boots to my husband. He is working as a shoemaker in Auschwitz and he will fix them. Of course, when I got the boots, I put new soles and I sewed and patched it up. And the boots look really very nice. And I sent it, so I messaged her back. When she got this boots, she called in mother and she gave her some more food and she was on special privileges, before she came to Auschwitz she was very happy that time, that I arranged this boots.</p>	<p>This sets up a scene where Vladek uses his abilities and connections to help his wife. To me this also contradicts the characterization of Vladek throughout the novel's as being somewhat cold and uncaring. Here he sees nothing of risking his own personal safety for his wife.</p>	
232; Docs.;1	Inter- active, image	<p>Illustration of a scene in the camps. While it's not clear where these and similar illustrations comes from or when they were done, it is suggested in other areas the DVD that Spiegelman had access to various artwork done by survivors.</p>	 <p>There are some really well-done artworks by survivors (or at least I think there from survivors it's never really clear). Unfortunately, we don't have any attributions to who created the work, or from when/where the works document. They're interesting to look at, and you can see some of it reflected in what Art creates within <i>Maus</i>.</p>	

232; Vladek Audio	Inter- active, sound, speech	Transcript of Audio clip - When the German came into on Hannegard, before they liquidated Auschwitz. They liquidated the Hannegarden Jews. They brought them over to Auschwitz. That time there was no room to burn them in Birkenau because everything was filled. They're waiting in line to be burned. So, they dig very, very big holes in the middle of the yard. They said to jump in the holes. Then they threw in gasoline and they made a fire. So people were burned alive, they were not with gassed, and so they perished.	Vadek telling the story of the burn pits. Really hard as a reader to process what this experience had to do to you mentally. Side note – also reinforces the absolute necessity to preserve survivor testimony
233; Vladek Audio	Inter- active, sound, speech	Transcript of Audio clip - <u>Art</u> : Didn't the people when they knew this was going to happen, didn't they try to at least kill a German at the same time? <u>Vladek</u> : It happened in some spots people tried to do it. But were machinery all around. Hidden machinery in the woods. If they tried they got killed right away. They killed one German, but they can do more, because they had machine weapons around standing. If it was an uprising, they started shooting around at everybody got killed, nobody was alive.	The reader a sense of interview process for an oral history and it reinforces Vladek's broken English as UCSD the part of his speech pattern and accent
234; Art Audio	Inter- active, sound, speech	Transcript of Audio clip - When I was a kid growing up, I wasn't overwhelmed by thoughts of the death camp. It just was entered into the mix. Just like I suppose a child of an alcoholic doesn't think that there is anything specifically unusual about a parent that passes out at 6 PM. It didn't seem unusual until I moved away from home and went to college. Then, in retrospect it seemed, maybe roommates parents didn't wake up screaming in the middle of the night when they were growing up. On the other hand, I was aware of it from a fairly early age. I was also surrounded by other kids of survivors because that was the set that my parents were most comfortable with. So, it seemed to be just part of what people had as the cards they were dealt.	This is interesting because it gets at this idea that we often don't realize how there are so many different elements of our lives that shape how we see the world and events in it. To the point where something that others would be very unusual, but for us this totally normal.

APPENDIX J: MODAL METANALYSIS FIELD NOTES FOR MAUS

Date: 1/12/2024 Name of Source: <i>MetaMaus</i> DVD, <i>The Complete Maus</i> CD-ROM reproduction Section of Source: Book II: And Here My Troubles Began, Chapter 2: Auschwitz (time flies) Page Number: 201			
<u>Reference</u> (Pg., Pnl #)	<u>Mode</u>	<u>Description</u>	<u>Metanalysis</u>
Modal Layering Example 1 – Time Shift		Result of Layering = Confirms	
201-203	Text – Dialogue, Use of upper and lowercase lettering, “Time Flies” above 1 st panel, Vladek’s speech in Present vs. Past.	See Appendix E Presence of upper and lowercase lettering	In neither the mode of text nor image is it clear in terms of why things are different. The reader clearly notices there is a difference between what around these pages and the remainder of chapter 2, but there are no clues as to what this means or why this is happening. There is a very subtle shift in time when the reader looks at the difference in Vladek’s speech pattern in present vs. past (adds to setting too).
201, 1 220-221			
1-3, 5 & 202-203	Image – Mask.	See Appendix F	In interactive mode, Art’s audio explains this section and what he is trying to do. While this mode on its own does clarify, without the other two modes, it is not as effective.
201 & 203 Art audio	Interactive.	See Appendix H	
Modal Layering Example 2 – Depression/Toll of <i>Maus</i>		Result of Layering = Confirms, Extends, Contradicts	
201, 5 203, 6-8 6 8 7 8	Text – Acknow. Depression, off page comment, convo feels therapy-ish, not interview, ack. feeling “messed up”, not being able to work or able to deal with success, lethargic.	See Appendix E	Reader can determine that Art is depressed from statement in text. Reader can also determine depression solely based on image and layout. Reason for depression is partially suggested by text, but is not clear as it relates to either modality of image or layout. The audio contradicts what appears in the novel versus what Art says. The novel reads very much like a therapy session, despite Art insisting that it isn’t in the audio. Also audio reference to Pavel being able to continue the conversation with Vladek seems suggestive of the impact that Vladek’s death had, that writing the novels, and “living” during this time period had on Art
201-2; 203, 1-3 201, 1-2 & 1-4 5	Image – Flies, unshaven, smoking, slouched over table, corpses, guard tower.	See Appendix F	
201, 5	Layout.	See Appendix G	
203, Art audio	Interactive - States this was not therapy.	See Appendix H	
Modal Layering Example 3 – Characterization of Reporters		Result of Layering = Extension	
202, 1-5, 4, 5 2-8 1-6 4, 5, 6	Text - Aggressive questions, & questions w/o connect to novels, all caps, bolded text. Image - On corpses, facial expressions, crowding & surrounding Art.	See Appendix E See Appendix F	Reporters come across somewhat stereotypically. They are aggressive in their questioning to the point whether stepping on the corpses to gain access. Questions also seem silly and unconnected at time, as well as confrontational.

Modal Layering Example 4 – Minimization of Holocaust			Result of Layering = Extension, Alters
202, 1-8	Text - stupid questions.	See Appendix E	Reporters stereotypical. Aggressive questioning to the point whether stepping on the corpses to gain access. Questions silly, unconnected, confrontational, and don't seem intended to elicit a thoughtful response.
6	Image - Business offers.	See Appendix F	
Modal Layering Example 5 – Art Inadequacy/Frustration			Result of Layering = Alters, Confirms
202, 1, 3, 5, 6 2-8 3, 8 7 8 203, 1	Text - Ellipses (voice trailing off), all caps, bolded, volume of speech, !, call for mommy, crying, Whew!	See Appendix E	In both text and image and feeling inadequate to the task at hand. Demonstrated through his hesitation at times during his answers, not necessarily being very clear as to the point he wants to make, getting frustrated – as evidenced by hand on head in panel one and four, and is physically shrinking as result of what is happening. Tie this in with calling out for is mom and crying.
202, 2-8 202, 4; 203, 1; 234, 1 202, 5-8 201,5; 202, 1; 203, 2-4 201; 202; 203, 1-3	Image - Emotional state markers, hand on head, Art physically shrinking, corpses, and flies.	See Appendix F	
Modal Layering Example 6 – Breaking Fourth Wall			Result of Layering = Contradicts, Alters
203, 2 3, 4 5 5 8 2, 3, 5, 8	Text - Date daughter was born, info on Pavel, direct questions to reader, acknow. metaphor, asides, talking to reader directly.	See Appendix E	Art breaks the fourth wall and talks directly to the audience. The use of captions is an effective way to provide extra information and answer the questions that the reader might have. It also provides for an opportunity for some asides. This ties the idea that Art discussed in the audio of the presence of a third time/present in the narrative.
2, 3, 5, 8	Layout - Caption boxes.	See Appendix G	
Modal Layering Example 7– Art Characterization			Result of Layering = Alters, Contradicts
201, 5 203, 6-8 6 8 7 8 234, 1-6	Text – Acknow. Depression, convo feels therapy-ish, not interview, ack. feeling “messed up”, not being able to work or able to deal with success, lethargic. Reference to how hard it is because of Vladek’s tension, the loud yell, quieting down, and Art’s matter-of-fact this always happens comment, Françoise hard to believe comment.	See Appendix E	<p>The reader gets a much better feel for Art as a character. Both the mode of text and image establish the fact that Art is depressed. His conversations and interactions as represented in both text and image shows individual that is not very confident. Refer to example 2 as it will relates to Art’s contradiction of what he says and what is portrayed.</p> <p>Art’s the scene that plays out on page 234 all implies an intergenerational trauma. How Vladek is still haunted by the Holocaust and its impact on him personally. But also, how these experiences shaped Vladek and caused trauma an impacted the people around him. This and the comment about Pavel, Art’s general attitude toward Vladek, suggests a real disconnect.</p>

201, 2-8 202, 1, 4; 233, 1; 234, 1, 3.	Image - Emotional state markers, and on face in frustration.	See Appendix F	
203 & 234, Art audio	Interactive.	See Appendix H	
Modal Layering Example 8 – Auschwitz		Result of Layering = Extends	
211, 5	Text – Vladek’s description of Auschwitz and Birkenau, names of	See Appendix E	Visual map of the layout and role to distance. Also begins to explain how Vladek managed to find Anya after they were separated. It is clear sense of the size of both camps and how prisoners were brought in. The mode of text is unable to communicate this on its own. Image does a better job but the reader is unable to determine what camp it is, why there are two of them, etc. The interactive mode suggests the above research that was done to double-check what Vladek said in his interview. Interview is hard to understand due to broken English.
6	location, Approximate distance from each other distances from each other		
4	Image - Compass points, Captions identifying key points, id of Sola River, dark smudges indicating ovens & crematoria, basic layout of camps, train tracks, and incoming train.	See Appendix F	
4	Layout - looks like map, occupies 2/3 of page (splash image), caption boxes.	See Appendix G	
211, Docs., 1, 9 211, Art Audio	Interactive – layout of camp, transcript of Vladek Interviewee describing camp.	See Appendix H	
Modal Layering Example 9 – Vladek Characterization		Result of Layering = Confirms, Contradicts	
220-221, throughout novels	Text – Vladek’s speech in Captions vs. Dialogue, Confidence, intelligence, and adaptability, also anger and bitterness. Representation of Vladek as unlikable or uncaring in text (e.g. 233, 3-8 Vladek’s treatment of Art) that talks about all that he did and risks helping Anya and to save her as well.	See Appendix E	See comments in Art characterization about intergenerational trauma. Also betrays the contradiction that is Vladek’s character. On one hand he is extremely intelligent, gifted with people and finding opportunities to survive and succeed, and risks quite a bit to save Anya. But then he is also very hostile, bitter, angry, and could be quite cruel.
223			

211, 220	Image - all of the characteristics above are also shown in image. Though not always clear as to what's going on (220-223), Vladek's poor treatment of Art at times,	See Appendix F
233, 3-8		
223, Vladek Audio	Interactive	See Appendix H

APPENDIX K: PAGES FROM *MAUS II*: CH. 2 SELECTED FOR MICRO-ANALYSIS

Figure 49. Page 201 (Spiegelman, 2011)



Figure 50. Page 202 (Spiegelman, 2011)



Figure 51. Page 203 (Spiegelman, 2011)



Figure 52. Page 211 (Spiegelman, 2011)

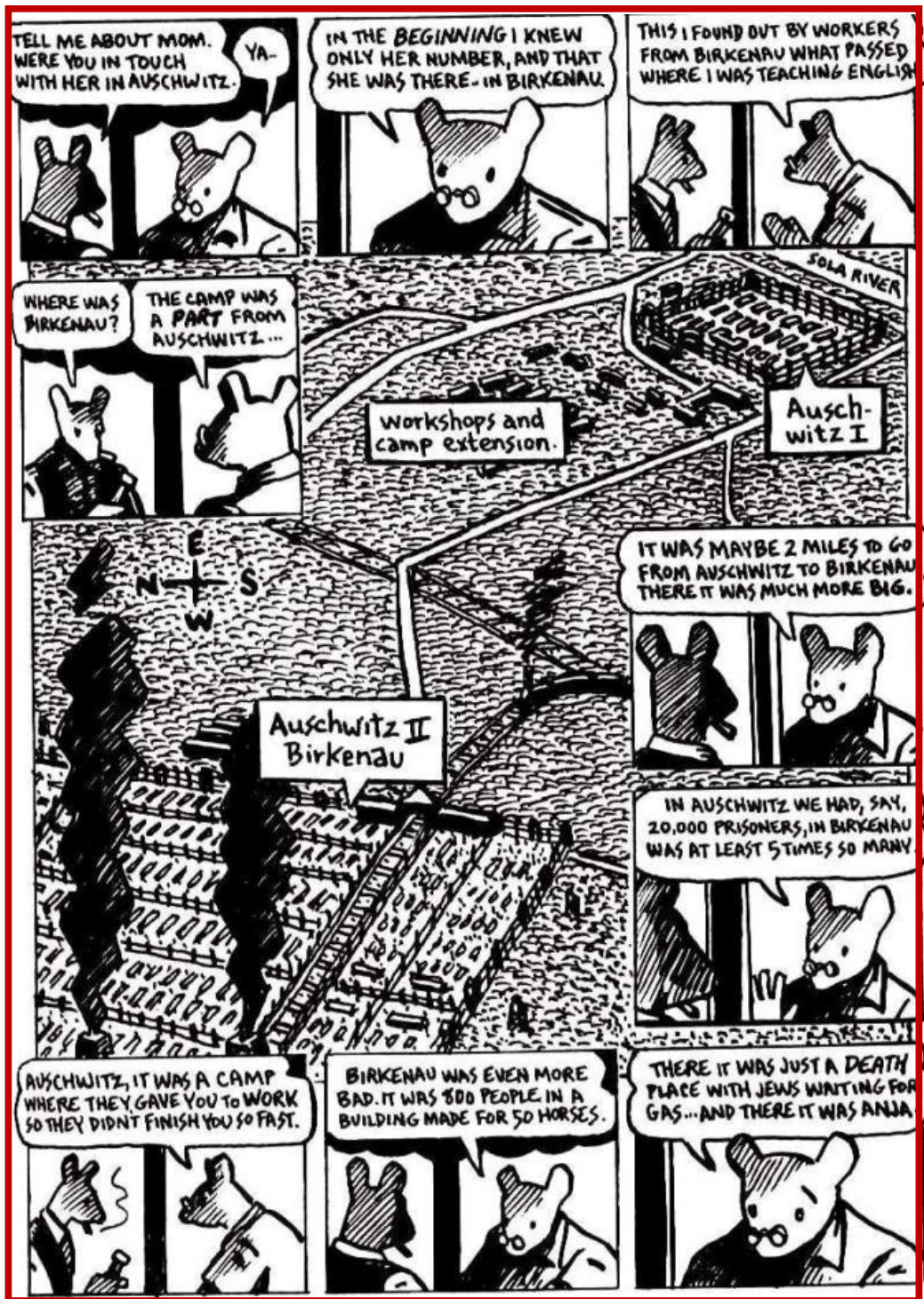


Figure 53. Page 220 (Spiegelman, 2011)



Figure 54. Page 221 (Spiegelman, 2011)



Figure 55. Page 222 (Spiegelman, 2011)



Figure 56. Page 223 (Spiegelman, 2011)



Figure 57. Page 232 (Spiegelman, 2011)



Figure 58. Page 233 (Spiegelman, 2011)



Figure 59. Page 234 (Spiegelman, 2011)

