

Ceremony of Innocence: A Case Study in the Emergent Poetics of Interactive Narrative

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of Interactive Narrative

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by

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Submitted to the Department of Comparative Media Studies on August 20, 2001, in Partial Fulfillment of the Requirements for the Degree of Master of Science in Comparative Media Studies

Abstract

Interactive narrative is an emergent medium in the process of finding its own voice. This thesis examines one work in order to help reveal the poetics of interactive storytelling. It involves close readings and analysis of the interactive CD-ROM *Ceremony of Innocence*. *Ceremony of Innocence* is based on the *Griffin and Sabine* trilogy, a unique combination of the epistolary novel and the pop-up book. The books consist of cards and letters exchanged between two lovers. The interactive work uses the characters, the plot, and all the cards, letters, and graphics from the books. The picture side of the postcards and envelopes, sometimes much altered, become interactive puzzles. When the puzzle is solved, it triggers a voice-over reading of the text of the card or letter.

The thesis is based on several close readings of different segments of *Ceremony of Innocence*. Some of the close readings involve an exhaustive look at a single puzzle-card, others examine the flow through several adjacent puzzle-cards, and still others look for reflections of broad themes that cut across the entire work. Each methodology isolates the evidence of narrative concerns (plot, character, emotion, theme) as instantiated in the interactive design of the work.

The thesis questions whether there is a necessary inconsistency between the narrative and interactive domains, and whether and how *Ceremony of Innocence* bridges any such inconsistency. The thesis maintains two conclusions. First, a broad narrative texture is distributed widely throughout all aspects of the experience: graphics, sound, cinematics, font, and performance. The other discovery is that the interactive process itself forms a kind of narrative. *Ceremony of Innocence* incorporates the use of interactive micronarrative at a fine degree of granularity, building micro-arcs that bring narrative concerns down to the level of the individual mouse-click. The work also subverts the familiar role of the cursor and the standard graphical user interface, causing the user to directly experience aspects of the story. *Ceremony of Innocence* succeeds as story because of its incorporation of narrative at every level of the work, including the interactive design itself. This is a lesson for all designers of interactive narrative.

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Prologue: Mapping the Thesis

Writing a thesis is like a journey, a quest. As in many quests, the traveler starts with a general direction and goal, but doesn't really know the exact route, or precisely what will await him at the far end. For much of the journey he has to surrender to the rapture of the road, and let the paths and the prize reveal themselves in the process.

This paper tells the story of the journey. It began with a recognition that a new form is emerging, and like any emergent form, is in the process of finding its own voice. That emergent form is the digital incarnation of interactive narrative. Many people are engaged in different versions of this same quest. Some are academics, some are critics, but most of them are creators of interactive story. These creators use various technologies and formats to build stories and story-worlds: the Web, art installations, virtual realities. This journey is an exploration into the world of interactive CD-ROMs and videogames. It seeks to understand one work, *The Ceremony of Innocence*, and through that understanding find wider truths about the emergent poetics of interactive narrative.

A quest must have its obstacles, its doubts, its challenges. The doubt and the challenge here is a fundamental question: Are interactivity and narrative compatible? Some feel that they are not - that a narrative experience requires a surrender to the storyteller, and that the exercise of volition and choice necessarily interferes with the story. Others see any experience of story as an active quest of its own - with reader decisions and actions built into all phases of the narrative. In the tale of this journey the compatibility question takes several forms: Is there a disconnection between the experience of story and gameplay in *Ceremony of Innocence*? Does the gameplay increase or diminish the enjoyment of the narrative experience? Does it do both, and if so, what is the final balance? The thesis charts the quest to answer these questions and to uncover the key issues with which they are associated.

The first stage of the quest is a search through two closely related works. One is the parent work: the *Griffin and Sabine* trilogy of books. The second is the main subject, the CD-ROM *Ceremony of Innocence*. The works are very closely related, but there also key differences. In order to fully understand the , it is necessary to understand the books on their own terms, and then to see clearly the similarities and the differences between the books and the interactive experience.

The heart of the quest is the close reading of *Ceremony of Innocence*. For a close reading, the traveler becomes a hunter, a tracker seeking clues and signs in the details of the work. Based on this sharp look at the territory, the hunter begins sketching a map for the rest of the journey. Close reading helps ensure that this conceptual map is firmly grounded in current practice, and that it will inform future practice. The journey includes several variations on close reading methodology. Some are close readings in the classic sense, and concentrate on an exhaustive look at an individual puzzle-card. Other readings are not quite so close, but examine the flow of detail across several adjacent puzzle-cards. Finally, some of the readings combine breadth of

scope with fine detail, looking for individual reflections of broad themes that cut across the entire work. Despite these differences, all of the close reading paths share a similar approach. Each looks for the trace of narrative concerns (plot, story, character, emotion, theme) as instantiated in the work. Each concentrates on the nature of the instantiation: what is actually happening, what does it feel like, what is its role in the work. Finally, each looks for the relationship between interactive craft and narrative. These close readings become data, which forms the background and provides the raw material for the theoretical work of the thesis.

The journey includes an excursion that strays into another aesthetic domain. Like many side journeys, this results in some insights that inform the progress of the larger quest. This detour is a look at cinema. The thesis examines Expressionist cinema and finds a relationship between film craft and the portrayal of emotion. This specific insight is broadened to the understanding that filmmakers enlist all of the many cinematic crafts in the service of story. Narrative can be (and is) distributed widely throughout all the components of a cinematic work: set, lighting, costume, prop, makeup, etc.

We are approaching the end of our quest, for this is one of the two key discoveries of the thesis. Interactive creators can use the same approach as expressive filmmakers, creating an expressive narrative texture that pervades the entire work. Examples of this narrative texture are found in the use of graphics, sound, cinematics, font, and performance in *Ceremony of Innocence*.

The other discovery is the importance of creating narrativity within the interactive process itself. *Ceremony of Innocence* does this in two ways. First, there are fine-grained micronarratives that are embedded within the work. These micronarratives have their own dramatic arcs and narrative concerns that reflect the broader arcs and concerns of the full work. Second, *Ceremony of Innocence* situates narrative at the heart of the interface. The cursor is the focus of the contemporary graphical user interface. The well-established conventions of cursor functionality form the basis of our sense of agency within digital environments. The puzzle play of *Ceremony of Innocence* subverts and perverts these conventions. These perversions are used to reflect broad narrative concerns of character, theme, and emotion.

The quest and its prizes shed light on the concerns that motivated the journey. Is there an incompatibility between interactivity and story? How do the creators of *Ceremony of Innocence* merge the two? Were they successful? More significantly, the results of this quest form a signpost for a constellation of future quests: the ongoing development of the craft of interactive narrative.

The Works: Griffin and Sabine / Ceremony of Innocence

Introduction

*Ceremony of Innocence*¹ is an adaptation of the *Griffin and Sabine*² trilogy of books into an interactive experience. At very fundamental levels, the adaptation is so close that it would be better described as a translation. The basic epistolary form, all of the story, all of the text, and all of the graphics are imported from the book form to the interactive form. In effect, these components form the baseline of the interactive narrative experience.

The first step in the analysis is to examine these two works to form an understanding of what they are and how they relate to each other. The purpose of the analysis is to identify connections between the narrative and the poetics³ of each work, and then to explicate the relationships of the poetics of interactive design to the development of interactive narrative. This is a non-trivial concern. Narrative has been defined as “a chain of events in [a] cause-effect relationship”.⁴ In linear narrative works, the author exercises a high degree of control over this chain. She can define and order the reception of the events through her construction of the plot (the events as presented to the reader), and she has considerable scope to constrain the ambiguity of the story (the chain of events as perceived and reconstructed by the reader) according to her narrative goals. In interactive narratives the same relationships hold (a plot is presented, and story is perceived)⁵, but the dynamics are changed through some level of explicit reader interaction. The question to be examined is how the details of craft, especially interactive craft,⁶ are used to shape the experience of interactive story.

¹ Alex Mayhew (Creative Designer) and Gerry Villon (Producer); *Ceremony of Innocence*; CD-ROM; (Wiltshire, UK: Real World MultiMedia; 1997).

² Nick Bantock; Griffin and Sabine Trilogy; *Griffin and Sabine* (San Francisco: Chronicle Books, 1991), *Sabine's Notebook* (San Francisco: Chronicle Books, 1992), *The Golden Mean* (San Francisco: Chronicle Books, 1993).

³ Poetics is the study of the practice of a given medium; it examines the craft that creators exercise in the process of producing a work. Lev Manovich notes “theoreticians in the 1960s defined *poetics* as the study of the specific properties of particular arts”. Lev Manovich; *The Language of New Media*; (Cambridge: MIT Press, 2001) 12.

⁴ David Bordwell and Kristin Thompson *Film Art*; (New York: McGraw Hill Companies, Inc., 1997) 90.

⁵ The term “story” is used in two different ways in the thesis, although the distinction should be clear in context. In this instance “story” is used the technical sense, in opposition to “plot”. This distinction grows out of the formalist distinction between plot/syuzhet (“the structure set of all causal events as we see and hear them presented”) and story/fabula (“mental construction of chronologically, causally linked material”). Both these definitions are from Kristin Thompson; *Breaking the Glass Armor*; (Princeton: Princeton University Press. 1988) 38-39. In the rest of this thesis, the term “story” is typically used in a less formal sense as a reference to the range of narrative concerns including plot, character, theme and emotion.

⁶ Craft considerations are not solely confined to the poetics of interactive craft. These considerations go beyond interactive structure and interface design to include the poetics of the component media contained within an interactive work: text, graphics, layout, moving images, performance, music, sound effects, etc.

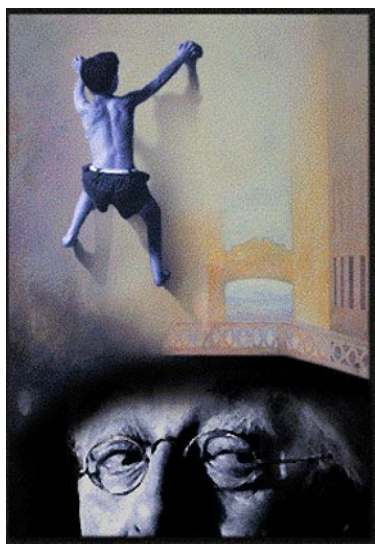
Griffin and Sabine

The Books

The *Griffin and Sabine* trilogy is a unique literary experience. These books look and feel like “pop-up” books for adults.⁷ They combine post cards, letters you can pull out of envelopes, intensive use of graphics, and calligraphy. The fifty-eight post cards and letters are collected in three books: *Griffin and Sabine*, *Sabine’s Notebook*, and *The Golden Mean*.

As in any pop-up book, the experience of reading is interactive. Many theorists argue that all reading of a text, regardless of medium, is an interactive experience. They see reader action, reaction, volition and interaction at all levels: physiological, cognitive, affective. In a pop-up book, the reader’s interaction at the physiological level is even more overt. The reader actively engages with the physicality of the medium, more so than with most books, or many other media.

In pop-up books, the graphics are at least co-equal with the text. Bantock’s imagery is rich, diverse, and engaging. He has developed two different styles for his protagonists. Griffin’s style is design oriented, with cleaner lines, simpler compositions - a commercial illustrator’s style. Sabine’s is more complicated, more primitive at times. Both are idiosyncratic, and both are eclectic in their sources (although she is more consistently so on both counts)⁸.



Griffin Card [GS6G]



Sabine Card [GS9S]

⁷ This is not Bantock’s first foray into this doubly mixed medium of adult pop-up. Pop-up books are traditionally a children’s medium, but Bantock remediated the format by redefining the content and the audience. He worked on *Jabberwocky*, a graphic and physically interactive retelling of Lewis Carroll’s poem (1991, Viking Books). It presages his collaboration with Real World multimedia on *Ceremony of Innocence*.

⁸ See Appendix A for a description of the labeling conventions used for referencing the specific cards and letters in *Griffin and Sabine* and *Ceremony of Innocence*.

It is important to note the narrative function of these basic graphic choices - they define character. Both Griffin and Sabine are artists - he a commercial artist in London, she a designer of stamps and illustrator of nature books in the South Pacific. Their graphics are manifestations of their selves - their working and creative selves. Bantock actively uses the styles, motifs, and content choices of their cards to both define and differentiate character.

The Story

This is a love story. We learn who the characters are, we see how they connect, and we discover what happens to their love. In the first book, *Griffin and Sabine*, the main characters are introduced. We meet the closed Griffin in his safe London existence, the free Sabine on her Pacific Island. They are both lonely and isolated, although Sabine has an eye into Griffin's life. Sabine finds Griffin's real name and location, and writes him. The correspondence traces the growth of their mutual interest and love. However, when Sabine moves to join Griffin, he flees in panic.

The second book, *Sabine's Notebook* begins with Sabine in Griffin's home and Griffin in flight, struggling between fear and love. As he travels, he experiences several epiphanies, and finally accepts their love, and her. At the end of the book, he resolves to join her once and for all. However, he cannot do so - they seem to exist in the same times, but in separate universes. They are both in his house, at the same time, but neither exists for the other. She returns alone to her own home in the South Seas.

In the final book, *The Golden Mean*, they struggle with this dilemma, and with the intrusion of a villainous snoop (Frolatti) who stalks Sabine. They finally decide to try to mutually visit the site of one of Griffin's epiphanies - it seemed to be a possible gateway between their worlds. Sabine's final card indicates that the pair has finally joined. Their long dance is over. There are still ambiguities (what is the nature of their juncture, has a new dance started with a Kenyan doctor), but this phase (and the trilogy) is finished.

"The Second Coming"

Turning and turning in the widening gyre
The falcon cannot hear the falconer;
Things fall apart; the center cannot hold;
Mere anarchy is loosed upon the world,
The blood-dimmed tide is loosed, and everywhere
The ceremony of innocence is drowned.

from "The Second Coming"⁹
W.B. Yeats

⁹ W.B. Yeats; "The Second Coming", (written in 1921) *Norton Anthology of English Literature*. Eds. M. H. Abrams, et al. 6th ed. Vol. 2. (New York: Norton, 1993). 1880-81. See Appendix G for full poem.

Yeats' poem is part of the intertextuality of both the *Griffin and Sabine* trilogy and *Ceremony of Innocence*. In the book, fragments of the poem lend a subtle uneasy tone to the experience of the story. The references are brief and elliptical, but occur at critical points throughout the trilogy. In the CD-ROM the poem is referenced even more substantively.

Consider the first book. The frontispiece of *Griffin and Sabine* contains only the words: "turning and turning in...". The end of that book is a post card by Sabine entitled "...The ceremony of innocence...". Even these brief interjections have their effect. Their elliptical nature first of all creates a sense of mystery or challenge for the reader. As we proceed through the story, we begin to unravel the connection between the poem fragments and the larger work. The first reference ("turning and turning in...") anticipates and signals the flux that Griffin is about to experience. His life is going to be turned on its (or perhaps, his) head. The inclusion of the hanging preposition and the trailing dots is not without effect. First, it makes the phrase more awkward, calls attention to the quotation and truncates the meaning. " 'In...' what?" This hook leads you into the story, but its specificity also signifies authorial choice, a pointer. This inevitably leads the analysis back to the poem itself.

The second reference ("The ceremony of innocence", used as the title of the last card in Book One [GS19S]) similarly frames the meaning of the card. We will review this card in detail below, but for now it suffices that the text and the words are unsettling on their own. If they are conjoined with a "ceremony of innocence", they take on an even more sinister flavor. As in the frontispiece, the specifics of the reference also take you to the original poem. Again, the treatment of the phrase foregrounds the act of quotation. The card's title includes both leading and trailing dots. The word "The" is capitalized, a remnant of the poem's line break, while the other, more significant, words remain in lower case.

A review of the full poem reveals the context in which these fragments appear, and amplifies the feeling of uneasiness. "Things fall apart..." "...mere anarchy is loosed..." "...the blood-dimmed tide..." These phrases go far beyond a mere coloration. They speak of consequences that are cataclysmic and catastrophic. This takes on added significance in the CD-ROM, where the entire poem is used.¹⁰

This pattern continues in the next two books of the trilogy. We see the incorporation of fragmentary phrases both in the frontispiece, and as titles for a final (or near-final) card. Book Two opens with "The best lack all conviction...", and the penultimate card is named "The Second Coming". This card title repeats the title of the poem, with appropriate use of capitals. After this there is an uncharacteristic segue to the final card. The segue is the words "Hardly are these words out when..." Book Three starts with the next words from the poem: "A vast image...troubles my sight", and titles the last card "And what rough beast...slouches ...to be born." This last phrase closes the trilogy.

¹⁰ "The Second Coming" is divided into four sections, which are read at four key transition points of *Ceremony of Innocence*. See Appendix G for a fuller explication of the use of the poem.

By the end of the final book, it is clear that we are being pointed to the original poem. What we find is a dense mood piece whose symbolism refers to the cyclical nature of life and death. The imagery is dark and biblical and ancient. Taken as a whole, the apocalyptic tone is unmistakable:

“things fall apart”,
“blood dimmed tide”,
“the Second Coming”.
“what rough beast...slouches towards Bethlehem to be born”

The themes

Griffin and Sabine is not a simple narrative: ambiguities draw the reader into consideration of meanings below the surface and into a rich network or fabric of interwoven thematic concerns. The themes often play out in dualities, or sets of dualities. This is consistent with the duality inherent in an epistolary work that presents itself as the exchange between two equal but opposite characters.

Reality/Fantasy or Sanity/Insanity

One place to begin unraveling the skein is with what may be the central theme of the work: the play between reality (or perhaps, sanity) on the one hand, and fantasy (or insanity) on the other. The plot tears the envelope of our accepted universe. Sabine can see Griffin's paintings at a distance (a great distance - halfway around the world). Griffin and Sabine co-exist in the same apartment at the end of book one, but never see each other. Griffin sees a strange warrior in a ghost reflection in Alexandria. Griffin and Sabine use a portal near that same reflection to cross from parallel worlds and join each other.

The question we are left with is the nature of this break with our ordinary world. Is the break metaphysical, or psychological? The story can be read as a fantasy adventure of two lovers in alternate worlds, or as a chronicle of delusion and insanity. The face value interpretation is the metaphysical one. The plot presents us with two lovers in parallel worlds. They struggle with their separation. His struggle is an indication of his innermost fears and conflicts. He finally comes to term with these doubts, and determines to find her. They find a portal, use it, and are happily joined. At the end they look for another kindred spirit (the Kenyan doctor) who is accessible through the window into other worlds.

An alternative explanation shares the metaphysical assumptions of the face value interpretation, but puts a darker cast on it. Sabine may be a temptress, a hunter of souls. She spies Griffin through her window into his life, and initiates a correspondence. He is indeed tempted, and is all but seduced in Book One. However, at the last minute he senses the danger, and flees. Her seduction continues throughout his flight - she gives him more sweet and comforting words. In the end he succumbs and joins her. In that joining he strikes the mantis's bargain, consumed by his mate. There are some indications that support this interpretation. One hint is that he tries to visit her home island (after she warns him not to), and nearly dies in the attempt. Another is the

tone of her last card in the first book. She drops her solicitous manner and takes on a clearly threatening tone: “Foolish man... you do not dismiss a muse at whim.”

The form and content of the last card of the final book is a significant pointer for this interpretation. This is Sabine’s card, written to the Kenyan doctor (her next victim, in this interpretation). Their calligraphic styles (strokes and inks) have been slowly merging in the last few cards. In this final card the merger is indicated by content as well as style. The card is titled (a singular event - her cards are never titled, his always are), and the choice of title is unsettling: “The rough beast... slouches to be born.” She speaks confidently for them both: “We are very impressed...” and “We are not convinced...” She has appropriated Griffin’s logo, and uses a date for the first time (again, his cards are always dated, hers never are). The card is signed “Sabine M. Strohem”, her first use of a middle initial. The “M” evokes Griffin’s last name (Moss), but reverses the normal conventions for married women. Her name is privileged; his is subsumed. This card can be read as an indication that they may have joined, but the union is under her dominance. She is firmly in command, and is actively seeking new prey.

A third interpretation is more intensely psychological. Griffin is not merely depressed and conflicted, he is much worse: a split personality. Sabine may be a construction within his own head. She represents at the same time an antidote to his loneliness and way to experience a freedom of spirit that he has denied himself. Sabine lives in the Sicmon Islands, which the author connects with the phrase “sick man”.¹¹ If this interpretation is accepted, his flight is from a part of himself. There is a clear indication that he knows of his condition, and fears the Sabine part of his mind. See Griffin’s card “Pierrot’s Last Stand” [F18G]: “Sabine you don’t exist. I invented you... you’re a figment of my imagination. I was lonely and I wanted a friend. But I’m almost out of control. I’ve started to think I’m in love with you. Before this takes me over it has to stop.” In the end, he gives himself up, and surrenders to the Sabine within his mind. She has triumphed.

This is the interpretation I tend to find persuasive. It does have some loose ends. Who is the evil Frolatti who stalks Sabine in book 3? What does it mean when Sabine sends the final card to the Kenyan doctor? Is he yet another figment of their feverish imagination? However, I believe the evidence of “Pierrot’s Last Stand” is convincing. If Griffin is not a split personality as the card indicates, what are we to make of his outburst? If he is actually receiving postcards from Sabine, then he is crazy to react the way he does, denying her existence despite the material cards in front of him.

None of these interpretations is definitive, and there are other possible explanations as well. This ambiguity was Bantock’s intention: “I believe that it’s best if each individual comes to terms with his or her own interpretation of the elliptical aspect of the ending.”¹² I believe this quote describes his intent for the entire book. He built a work that invites, or perhaps requires, multiple interpretations. In any case, a singular interpretation is not the real issue. It is clear that the theme of reality vs. insanity (or at least, reality vs. fantasy) is a key theme of the book. A

¹¹ Nick Bantock; *The Artful Dodger*; (San Francisco: Chronicle Books; 2000) 55

¹² Nick Bantock; *The Artful Dodger*; 63

profoundly ambiguous ending can be seen as further privileging this central theme. However, there are other threads in this knot of themes.

Isolation/Connection

Isolation versus connection is another ongoing theme throughout the work. Griffin is a lonely figure, orphaned first by his parents, then by his beloved aunt. He is limited in his safe career and his empty life. At the same time, Sabine faced her own version of orphaning and isolation. The plot is a documentation of the struggle of these two isolated souls trying to find each other.

One of the knots here is the powerful relationship between this theme and the work's central theme. The play of isolation versus connection is complicated by the play of reality versus insanity. The key question with regard to Griffin's mental health is whether he is merely a paranoid depressive, or if he is fully schizoid. Is he one damaged personality, or two split personalities? In either case, his mental state reflects a dialectic of isolation and connection. If he is a split personality, then what are the implications for a juncture of the two personalities? Will one avatar thrive, and the other die, or will both be reborn in a new harmony?

Death/Life

Death is a recurring theme of the story, but it is complicated through its connection with life, birth and love. Both Griffin and Sabine have connections with Death. We see it in Griffin's affinity with the Sphinx and the Samurai [G9G], and in Sabine's Cemetery card, where she talks of "communing with sisters". The Dark Angel is a recurring visual image ([GS19S], [SN20S], and the final stamp in the trilogy, coming after the card series is finished). This image is disturbing in part because it fuses feminine beauty with death.

The story associates love with death in other places. After his flight, he reveals that he loves her, but he fears her. He asks, "are you my shadow", and "Are you my lover or are you that dark angel whose picture came through my letterbox...?". He then refers to "your menacing winged card hanging over me...".¹³ Later, she warns him twice not to come to her island, that in her home danger and death await him. He nearly drowns when he ignores her advice, and in that moment makes a decision to use her love to choose life over death. This play of love and death forms a disturbing background to the darker interpretation of the trilogy's ending. The consummation of Griffin's love may require the death of his own personality.

The Yeats' poem sets up the connection with birth. The books make use of his dark apocalyptic visions throughout, and the trilogy ends with the long card title: "And what rough beast...slouches ...to be born." The CD-ROM also incorporates Yeats, and takes his dark allusions even further. Death permeates the background to these works. A birth ends the trilogy, but it is a dark birth. The ominous title of the last card is echoed by one final image. The last full card is of a baby, but it is followed by a black page with a lone stamp depicting the angel of death. The CD-ROM maintains these elements, but adds an African hymnal chorus over a play of comets. On the surface this aural combination speaks of ceremony and life. Yet, there is a

¹³ All quotes from Hoodwink letter [SN01G].

melancholy note in the music, and that note begs the question of the cost this new birth. Is Griffin a sacrifice or a partner, or was he both, a willing participant in his own demise?

Journey: Flight or Quest

This Sphinxian journey from life to death is but one of many journeys in this book. Both Griffin and Sabine undertake journeys (although it is an open question whether the journeys are physical, metaphysical or psychological). Griffin's part in particular plays out as a journey, or rather a series of journeys. First, he must accept the existence of a kindred spirit, then he flees her approach, then he twice strives to reach and join her. Griffin's journey alternates from flight to quest. In the first phase he runs from Sabine as if from his own death. In the second he seeks his rebirth in the consummation of their love. Ironically, the price of his rebirth may be the death of his self within her stronger orbit.

Discovery/Mystery

Griffin's journey, like any journey, has overtones of discovery and mystery. After he bolts from fear, he travels to understand, to find himself. At the end of the second book, when he finds himself at last, he returns to meet his love. Instead of seeing her, he finds the mystery of the disjunctive universe. Their union is mysteriously blocked and refused. The final book can be read as the story of his search to solve that mystery, and to discover the path to his love.

Transformation

The final theme, transformation, is not necessarily a duality, but it can contain dualities. People and things change from one state to another, often becoming the opposite of where they began. The book uses a series of such transformations to help build the plot. Griffin's sense of Sabine transforms from angel to devil in Book One, triggering his journey. The reversal of this transformation takes her back to angel and beloved again. This reversed transformation forms a complete cycle, reminiscent of Yeats' "gyre".¹⁴ The universe transforms three times, breaking its own rules. First, Griffin sees the samurai in the window when none is there. Later, and more dramatically, he returns home and shares the same time with Sabine, but is unable to share her space. In the third they both return to the Alexandrine window in their parallel universes, and join each other at last. The first of these time-space transformations is triggered by the transformation of Anubis in the samurai. The last may have been followed by the transformation of the pair into the joined creature: Sabine M. Strohem.

Not all transformations are complete. Griffin's initial transformations can be halted, and reversed. We have already seen his love for Sabine turn to fear, and back to love again. His name and his logo instantiate a half-transformed animal. His fondness for Gryphons and Sphinxes doesn't escape his friend Maud,¹⁵ who remarks of his cards: "...a series of creatures that show a transition from single to dual harmonic status". This thought is echoed in the title of the third book. *The Golden Mean* refers back to a recursive geometric transformation that can build harmony, balance and beauty.

¹⁴ "The Second Coming": "...turning and turning in the widening gyre..."

¹⁵ Actually his beloved Aunt Vereker's best friend Maud, in The Frog letter [GM14G].

Whatever the outcome of the story, both lovers are indeed transformed. Griffin's transformation may be more complete, but Sabine is also changed. She merges with Griffin, either as a partner or a ruler. Either way, she clearly takes on some of his aspects and traits, as witnessed by the language, the dating, the titling, and the calligraphy of the final card. Transformation connects with the themes of love, rebirth, and perhaps death.

The epistolary tradition

Griffin and Sabine sits, perhaps uniquely, at the juncture of two literary forms: the pop-up book and the epistolary novel. The epistolary novel has a long tradition, from *Clarissa* to *The Color Purple*. *Griffin and Sabine* adheres to a number of elements that are consistent across most epistolary novels. Ruth Perry points out several characteristics of the genre in her book *Women, Letters and the Novel*.¹⁶ One is that the use of an exchange of letters as a framing device lends an air of veracity to the work. The letters and cards of the *Griffin and Sabine* trilogy can be perceived as artifacts, not authorial descriptions. They mimic real objects created by real people, who felt and did what the letters describe.

Perry also notes that the driving force to the correspondence is an obstruction, typically between two lovers: "Epistolary fiction always works according to a formula: two or more people, separated by an obstruction which can take a number of forms, are forced to maintain their relationship through letters." Perry goes on to say: "...the characters are prevented from acting directly and can only respond to their difficulties by writing about them and hoping for a solution which will bring them together."¹⁷ This description clearly fits *Griffin and Sabine*. The CD-ROM actually incorporates this epistolary characteristic at the structural level. The user faces a series of narrative obstructions set up by the alternation of puzzle play and multimediated story performance.

Finally, Perry identifies seduction is a common theme of the epistolary novel. Perry points out that the process of seduction centers on the psychological, not the physical domain: "...seduction, a standard plot in the epistolary novel, can be seen as an attempt of one person to change another's mind, an attempt to enter the consciousness, tamper with it, and reverse the intentions of the will."¹⁸ Compare this with Sabine's pursuit of Griffin. He vacillates from interest to fear. However, Sabine's seduction is persistent and ultimately effective. Note that the normal gender roles of the epistolary seduction are reversed. It is she who wins his heart and with it his acquiescence to their union. "Seduction then becomes a matter of will power rather than desire - a measure of who dominates whom..." By this standard, Sabine is the victor. The final card is hers, and his traits (his middle initial, a titled card, a date on the card) are subsumed within her will and initiative.

¹⁶ Ruth Perry; *Women, Letters and the Novel*; (New York: AMS Press, 1980).

¹⁷ Perry, 93

¹⁸ Perry, 125

The nature of this subsumption is a critical issue. Again, we can find a reflection in Perry's description of the epistolary tradition: typically an epistolary novel ends in love (sexual union) or death. "The final sexual contact between long separated characters can be seen not only as the novel's reward for those who have proven themselves to be persevering, faithful, and chaste, but also as a ringing down of the curtain on those who are unshakably fixed in these virtues."¹⁹ Conversely, "The other possible ending to epistolary novels is the death of one or more of the characters. These alternatives of sexual union or death make sense within the paradigm of the letter novel, for either one puts a stop to the letter writing and resolves the separation which the characters spend their fictional lives trying to overcome."²⁰

The relation of *Griffin and Sabine* to this traditional resolution of the epistolary novel is complicated. It doesn't end as cleanly as Perry describes. The last card is not a closure, it is yet another setup. The cycle, the Yeatsian Gyre of Sabine and Griffin may have resolved, but a new cycle is started. The next partner in the dance will be the Kenyan doctor. Secondly, and more profoundly interesting is the question of which of the epistolary resolutions have Sabine and Griffin found. Is their juncture an ideal union of soul mates? Or, does the resolution in fact meet both epistolary outcomes: is their union based on the death of Griffin's self?

Ceremony of Innocence

Ceremony of Innocence is an interactive CD-ROM based on the *Griffin and Sabine* trilogy. The translation from the book form to the CD-ROM is a very close one. The entire plot, the postcard/letter form, all of the text, and all of the graphics are imported from the books. The characters are the same, and the storyline and its details are virtually identical. The authors have added multimedia content (sound, animation of the graphics, movie sequences) as well as an interactive component.

The interactive structure of the CD-ROM is very simple. The story is told in 58 postcards and letters. In order to read any card or letter, you must solve a puzzle. Each puzzle presents itself as a replica of the illustrated face of the corresponding card or letter from the book. The layout and graphic components are identical or similar. The puzzle is solved by using the mouse to interact with the card face.

Comparing *Ceremony of Innocence* with *Griffin and Sabine* - specific variances

There are specific variances between the books and the CD-ROM, but on the whole the works are very similar. The two works share the same characters, plots, and graphics, with some few exceptions. Some of the obvious differences at the level of story include:

¹⁹ Perry, 95

²⁰ Perry, 95

- the addition of a movie cut-scene at the beginning of the CD-ROM,
- the increased use of the poem “The Second Coming”,
- the increased importance of the Minnaloushe character,
- a change in the face of one post card (Self-Portrait [GS17S]),
- and the move of a single card from the end of a section to the beginning of the next one. (Dark Angel is moved from the end of Book Two in the trilogy to the beginning of section three in the CD-ROM.)

Despite these differences, the striking overall impression is how little change there is between the two works. The details of the variances in *Ceremony of Innocence* are addressed in Appendix H, but the overall effects are small, and are consistent with the parent work. Each variance is either related to the development of an existing narrative theme, or results from specific differences in the nature of the two media. Some of the variances do color the experience of the CD-ROM in ways that are slightly different from that of the book. However, none of them change the essentials of the plot or the basic experience of the story. At the level of plot and story, one can choose to read the book and the CD-ROM as virtually the same work.

General variance - the conditions of reception

The general variances between the books and the CD-ROM are much more significant than the specific variances. Despite the similarities between the two, the work has been remediated - translated into new media forms.²¹ The conditions of reception are fundamentally different.

The books have the physicality of a well-honed tactile experience - familiar, portable and comfortable. Their status as pop-up book, abetted by their wit and charm, add considerable idiosyncratic appeal to the generic appeal of the book interface. Part of that appeal is the increased tactility and interactivity of the process of reading postcards, opening envelopes, and pulling out and smoothing folded letters.

The CD-ROM, on the other hand, is experienced on a computer. This is probably not as good as a book, but it is not nearly as distancing as some would have us think. I am typing these words on my bed, stereo blasting the latest tune by The Chemical Brothers. I have three pillows in back of me, one underneath my knees. The computer is warming my lap - not too hot, I have a towel to protect both of us from the heat. My brand-new wireless optical mouse adds to the comfort of my experience. I’ve experienced the game under these conditions, and under more ergonomically standard setups (desk, good chair, etc.). I find the CD-ROM enjoyable under both circumstances. I am, admittedly, a bit of a cyborg: “used-to”, “comfortable-with”, and very much “dependent-on” my computer, but for me and others like me, this is a pleasant and human reception experience.

²¹ Jay David Bolter and Richard Grusin. *Remediation, Understanding New Media*. (Cambridge: MIT Press, 1999) 45-47

However, one thing is lost in the translation from the book to the CD-ROM: the apparent authenticity of the epistolary form. In epistolary novels, as Perry points out, we feel as if we are reading real artifacts of real people's lives. This feeling is even more direct and immediate in *Griffin and Sabine*. We are not merely reading remediated typeset versions of the artifacts; we are seeing realistic facsimiles. When we read the letters we can even believe we in touch with a quasi-Benjaminian aura of the original.²² We know it is a duplicate, but we can choose to pretend it is the artifact itself. This is a powerful tool for authenticity, and it complicates and enriches the play of reality, fantasy and insanity in the books. With the CD-ROM, the conditions differ tremendously. Despite my sense of comfort with the digital experience, the sense of authenticity referred to above is diminished considerably.

A more significant question for this paper is the difference that the process of interaction brings to the conditions of reception. The CD-ROM has added interactivity to the narrative experience, and has therefore altered the mode of narrative reception. Insofar as the reading of a book is a passive experience, then the introduction of an active viewer mode is potentially distracting from the narrative.

This argument is undercut on several levels. First, *Griffin and Sabine* is far from a passive experience. The active manipulation of the envelopes and letters, and the perception and assimilation of the graphic elements make the reading of the story in the book form a somewhat interactive event. Further, any act of viewing or reading involves an active participation. Kristin Thompson writes about her neo-formalist view of audience activity in cinema. "...viewers are not passive 'subjects'... Rather, viewers are largely active, contributing substantially to the final effect of the work. They go through a series of activities, some physiological, some preconscious, some conscious, some presumably unconscious."²³ Thompson is talking about film, but Mikhail Bakhtin makes the same argument for language. "In the actual life of speech, every concrete act of understanding is active: it assimilates the word to be understood into its own conceptual system filled with specific objects and emotional expressions, and is indissolubly merged with the response, with a motivated agreement or disagreement."²⁴ Bakhtin is making a general point about readership and active interpretation, but his conclusion is particularly pertinent to an epistolary novel. In most novels there is considerable play for authorial guidance and direction of interpretation. In epistolary works the ability of the author to provide intellectual and narrative scaffolding is limited, and the scope for reader interpretation is correspondingly greater.

The fact that any act of reading or viewing is an active experience gives some comfort, but the question about computer-based interactive narrative still remains. Is there a fundamental inconsistency between a user's experience of story and her active psychomotor role within a computer-based environment? *Ceremony of Innocence* is not quite a computer game by some

²² Walter Benjamin; "The Work of Art in the Age of Mechanical Reproduction", in *ILLUMINATIONS*, ed. Hannah Arendt (New York: Schocken Books, 1969)

²³ Kristin Thompson; *Breaking the Glass Armor*; 26;

²⁴ Mikhail Bakhtin; "Discourse in the Novel", from *The Dialogic Imagination: four essays*; (Austin: University of Texas Press, 1981) 282

definitions, but it does incorporate a series of puzzle games. These puzzles take one away from the experience of the story, and force one to ponder, to experiment, to look, and to click. Does this necessarily make for a disconnection between the gameplay and the story experience? This is a key question for this thesis, and we will revisit it several times.

Translation effects

The reception question is critical, but it is not the only difference between the two works. The general translation from the books to the CD-ROM has involved a variety of individual media translations. One generic difference is that in the CD-ROM, the card and letter faces have been transformed from still images to interactive puzzles. The fact of the puzzle play forces the user to concentrate and spend time in the graphic environment. The graphics carry metaphoric or allegoric narrative information, and it can be argued that the gameplay is an opportunity to call the user's attention to that fact. This paper will argue that this choice enhances the broad diffusion of the narrative throughout the work.

The gameplay has also added movies to the card/letter experience. There are cut scenes at the end of each puzzle, and several movies embedded within the letter sequences. These movies add to the audio-visual richness of the experience, and they also enhance the impact of the narrative.

Ceremony has also added the performance of the actors reading Bantock's and Yeats' words. Kingsley's reading enhances the experience of "The Second Coming" excerpts, and he personifies Frolatti's slimy threat well. Paul McGann and Isabella Rossellini add their own flavor to the words and characterizations of the protagonists. Hearing the words read may detract from the textuality of the experience, and hence the epistolary authenticity. However, the performances have their own immediacy of impact, and give definite sense of the characters. McGann's Griffin has a querulous tone that stops just short of whining. It fits his character, although it is not terribly appealing. Rossellini's Sabine is much more attractive - her seductive tones make Sabine desirable and perhaps more dangerous. A side effect of this enhancement of character is the constriction of the reader's ability to hear her own version of the voices. Rossellini's warmth or McGann's petulance add to the experience, but they also limit other interpretations.

On the whole, the content of the two works is remarkably similar, although it is translated and remediated into other forms. The CD-ROM has all of the words, and all of the graphics from the books. The specific medium used may differ, and the CD-ROM has added motion, sound, and movies. The chart below sums up the media-specific content similarities and differences.

	Book	CD - ROM	
		hear	see
text	all	all	all text in cards some text from letters adds motion
graphics	all	add sounds	all ²⁵ some add motion or interaction
movies	none	some sound	yes
transitions	none	some	yes
Second Coming	excerpts	all the poem - in four separate pieces	brief excerpts
The Cat and the Moon	no	all	none of the words, but excellent animation

**Table 1: Media-Specific Content Summary:
Griffin and Sabine trilogy and *Ceremony of Innocence***

Context: Game and Story

Ceremony of Innocence raises the question of the fundamental relationship between game and story. This is true despite the fact that some theorists would argue that *Ceremony* is a very limited game form, or even that it is not a game at all. Greg Costikyan maintains that games are inherently non-linear.²⁶ This is problematic for *Ceremony*, which has interaction at the micro-level (the puzzle play) but whose overall interactive structure is very linear. Solve a puzzle, read a card, solve the next puzzle, read the next card. Repeat til done. Frank Lantz and Eric Zimmerman argue that games include both rules and play. “Within the strictly demarcated confines of the rules, play emerges and ripples outwards, bubbling up through the fixed and rigid rule-structure in unexpected patterns. A curious feature of games is that they embody a double-movement, at once fixed, rigid, absolutely closed Rule and its opposite: open, creative, improvisational play.”²⁷ It is difficult to argue that the puzzle play within *Ceremony of Innocence* approaches this high standard.

Costikyan²⁸ goes on to raise the bar even higher. Relying on Chris Crawford, he is clear that a game is not a puzzle. “Puzzles are static; they present the ‘player’ with a logic structure to be

²⁵ The CD-ROM appears to use all the graphics, although I have not done an exhaustive comparison of each card and letter.

²⁶ Greg Costikyan; *I Have No Words & I Must Design*; <www.crossover.com/costik/nowords.html>

²⁷ Frank Lantz and Eric Zimmerman; “Rules, Play and Culture: Towards an Aesthetics of Games”, unpublished paper provided by author.

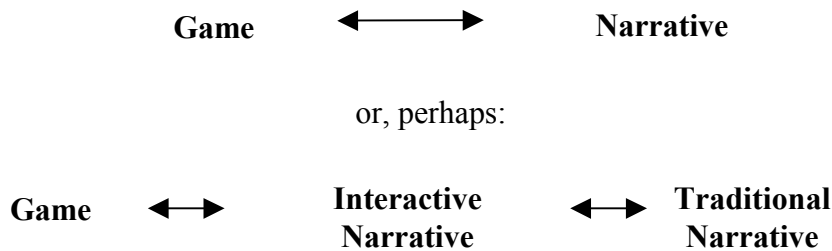
²⁸ Greg Costikyan; *I Have No Words & I Must Design*

solved with the assistance of clues. ‘Games’, by contrast, are not static, but change with the player’s actions.” Costikyan goes on to say that games:

- require the players to use the rules to create their own consequences. He likens this to free form jazz.
- require an active sense of decision making in the light of clear goals and in the face of an active opposition
- require the management of resources
- require a token as the active agent of the player

Costikyan further claims that games are not stories (although he does allow that story can “color” the game experience). Many traditional storytellers would agree that there is a basic incompatibility between game and story. In 1995 I examined this question with a group of Vancouver filmmakers. I played some video games with them, and then we discussed the implications for narrative. In those sessions, many of them felt that the fact of interaction would necessarily interfere with the experience of story.²⁹

There is another possibility. One could first argue from Thompson or Bakhtin’s perspective that any act of readership involves action and interaction.³⁰ If that is the case, it may be that many experiences blend game-like qualities and narrative in different proportions. In this perspective one can consider a continuum of interactive experiences:



A specific instantiation of the latter continuum might be:

Tetris/SuperMario/Doom/Final Fantasy/Myst/Just Grandma and Me/The Complete Maus/ “traditional” media

For the purposes of this continuum, *Ceremony of Innocence* lies somewhere in the middle. *Ceremony* pre-determines and embeds the narrative rather tightly, rather than allowing it to emerge spontaneously from the gameplay, or from other algorithmic processes.³¹ In this sense it is more structurally constrained, and less overtly interactive and emergent. This would place *Ceremony* somewhere on the traditional side of interactive narrative - probably between *Myst* and *Just Grandma and Me*.

²⁹ Jim Bizzocchi and Justine Bizzocchi; *Birth of a Notion*; WRITE Conference Proceedings; (Vancouver: University of British Columbia, 1995).

³⁰ Thompson, *Breaking the Glass Armor*; 10

³¹ The embedded-emergent distinction is based on Eric Zimmerman’s analysis. For a fuller explication of his use of these terms, see “Embedded Narrative Structures” below.

Wherever one particular work fits on this continuum, the question remains about the relationship between the interactive experience and the narrative experience. Are the Vancouver filmmakers right - is there a fundamental contradiction or disconnection between interaction and story? The question has been posed in different ways: "It does take you away from the characters, doesn't it?" "Is this a puzzle, or is this a story?" "Is there a narrative 'value-added' in the gameplay, or not?" This constellation of questions forms a background to the more formal explications of this thesis. This implicit interrogative helps to inform a more robust reading of *Ceremony of Innocence* by maintaining a focus on the heart of the matter - the relationship of interactivity to narrative goals and concerns.

Methodology: Close Reading Process

Ceremony of Innocence is an interesting test case for the examination of interaction and narrativity. *Ceremony* borrows all of the plot (and the graphic "look and feel") from the *Griffin and Sabine* trilogy. This means that the narrative experience is benchmarked in the books, and is available for comparative reference. Examination of the CD-ROM experience can then reveal whether the interactive components add to or detract from or are neutral with respect to the narrative experience.

Ironically, the simplistic interactive structure of the CD-ROM may also aid in the examination of the effect of interactivity. The higher-level interactive structure of *Ceremony* is linear and unbranched: puzzle play, solution, story, puzzle play, solution, story... Repeat til finished. This strict and predictable alternation foregrounds the passage from the narrative lexia to the interactive puzzles. This should make the differences and the connections easier to see. The benchmarking with the books, and the demarcation of the puzzle/story mode should make it easier to purify the observations of the close reading.³² Both can serve to conceptually isolate the evidence of pure story components or reflections within the puzzle play. This isolation helps to trace the threads of narrativity within the interactive mode.

Structuring the Observations

A close reading is "the detailed analysis of the complex interrelations and ambiguities (multiple meanings) of the verbal and figurative components within a work".³³ This methodology was developed for the explication of literary text. Its application to an interactive multimedia work requires that the same attention to detail, context, and meaning be extended to include the various component media (sound, graphics, moving images) and the interactive process itself.

³² "Purification of observation" is used here to refer to the development of a consistent approach to a qualitative analysis. The concept is put forward by Pertti Alasuutari in *Researching Culture: Qualitative Method and Cultural Studies*; (London: Sage Publications, 1995) 13

³³ M.H. Abrams. *A Glossary of Literary Terms*, Seventh Edition. Ft. Worth, (Texas: Harcourt Brace College Publishers, 1999) 181

In order to understand the two works, I read the books and played the CD-ROM many times. I took detailed notes from the beginning. I started with an informal notational system, and gradually elaborated it during repeated iterations of the game play. The notational system allowed me to track and compare observations from two different domains: gameplay and story. The notes were organized into a database³⁴ with the following fields:

Table 2: List of Fields in Notational Database

Narrative	Theme	Gameplay	Other Media
Plot	love	puzzle	Graphics
Character	discovery	feel	Sound
Knowledge	deception	difficulty	Cut Sequences
Emotion	mystery	description of play	
Dramatic Arc	fear	trigger	
	duality	clue	
	flight	cursor	
	isolation	payoff	
	death	critical references	

Context for the observations

The observations that form the basis for the close readings are drawn from my own experience. I augmented my own experience with discussions with my advisors and with other colleagues. These discussions have added to my perspective on the experience, but the final responsibility for the observations and the conclusions are mine. The methodology has not involved the systematic confirmation of findings with other subjects or other researchers. In the end, this thesis represents the qualitative analysis of a single reader.

My observations form the basis for the Close Reading sections that follow. The observations can be treated as a data set built through multiple reviews of the books and the puzzles, constant referencing and modification of my notes, and repeated screenings of a videotape of the cut sequences. Despite the considerable amount of information I had at my disposal, I tried to write the descriptive sequences of the close reading sections as if they represented the perspective of a naïve interactor. The naïve interactor whose voice I created is someone who has not read the books, and is playing the game for the first time. These descriptive sequences therefore represent a constructed phenomenology. It is completely based on my own experience, but it approximates the experience of a different and theoretical interactor. This theoretical interactor is far less informed than I was, but has considerable power to observe and comment in detail on his own reactions to the event.

³⁴ A sample report from the database is available in Appendix D

Close Readings

There are three distinct segments to the close reading section. The first section starts with a close reading of a single letter and puzzle: Griffin and the Sphinx [G9G]. This section also traces the direct connections to the “Minneloushe” series of cards that immediately follow this letter. The second section reviews another single card, this time one of Sabine’s: Cemetery [G18S]. The third section is not a close reading per se. Instead, it uses finely detailed observations from across the entire work as the basis for analytical connections with central narrative themes. All of the close readings have a common goal: to discover and to explicate the relationship between craft and narrative. Narrative considerations include story, theme, character and emotion. A wide variety of craft are discussed, but the heart of this section is the observation and analysis of interactive craft.

Griffin and the Sphinx [G9G]

The gameplay

Book Two, *Sabine’s Notebook*, is the transitional work in the trilogy. *Griffin and Sabine* established the characters, began the relationship, and defined the problem: Griffin has panicked, and fled at the approach of his lover. In the second book, the characters are developed further as they work through the complications of the plot. Sabine waits in London, still sending messages of reassurance and love. Griffin is in flight. He is Odysseus without a war, pursued by inner gods and demons, fleeing his Penelope rather than seeking her. Instead, he seeks himself in his travels, in Italy, in Greece, and next, in Egypt.

In [SN8], Sabine re-introduces death as a theme. In [SN7] Griffin had described his next step as going into “no-man’s land”³⁵. She sees death in this: “Your preparations for ‘crossing into no-man’s land’ have the sound of a death wish.” She urges him to see it as a transition, and reminds him that she is there, “holding the string” and won’t allow him to disappear. Her interjection reinforces several themes of character and story. Griffin’s depression could be fatal, but that wasn’t clear until she crystallized the thought. At the same time her statement contains various insights into character. It reinforces both her strength and his vulnerability. She holds herself out as his emotional support, and perhaps more. It’s not that far from holding strings to pulling them, especially given his doubts, and her self-assurance.

The puzzle in [G9G] has contrasts and similarities with these themes. The postcard is in the desert. A pile of sand dominates the center. The pile is flanked by a khaki dirigible on the top right and a bright blue stamp on the top left. The sound is rather melancholy: a soft chorus, very low in intensity, sounding like the wind rhythmically susurrating in the desert. The color tones are relatively bright, and not funereal in nature.

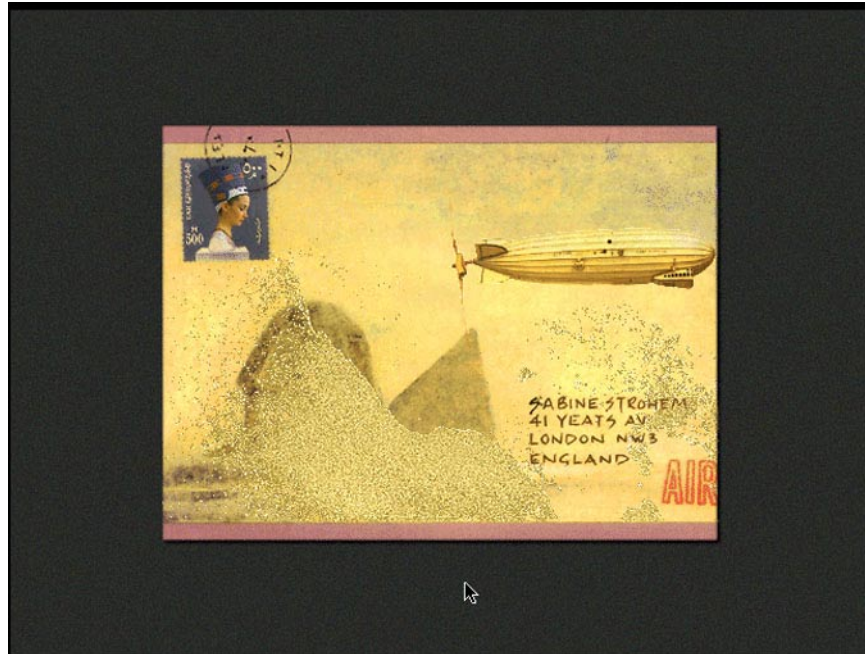
³⁵ Again, echoing Odysseus, whose name for himself when fleeing from Cyclops was “Nemo” - literally “no man”.



Griffin and the Sphinx [G9G]

The eye, and therefore the mouse/cursor, is drawn to the stamp first, and then the dirigible, and then the mound of sand. The stamp is interesting, but a challenge. The cursor can't enter the stamp - the perimeter is a hard boundary, and any attempt to cross just result in skating around the edge. However, the eyes of the queen in the stamp do follow the cursor's motion - so there is some life in the scene, and some reward for the user's exercise of agency. The dirigible is more accessible, but less fruitful, at least at first. The user is drawn to rollover the blimp and click on its gondola, and nose, and propeller - but to no avail.

This leaves the pile of sand in the middle. That is a different story altogether. As the mouse rolls over the top of the sand pile, the queen's gaze follows the cursor. She leans forward, blows, and the cursor and the top of the sand pile tumble down together - landing on the bottom of screen right. The cursor actually disappears into the black frame, but is easily rolled out by the mouse. Up over the sand pile again, she leans and blows, and a new tumble follows, sand and cursor rolling down the same slope. This time, the tip of a pyramid is revealed, and the dirigible's propeller is free and clear of the sand.



Griffin and the Sphinx [G9G]
[after 3 tumbles on the sand pile]

At this point things are a little more interesting. We can see the next goal - reveal the ancient structures in the sand. We know how to do it, simply roll the cursor over the dwindling sand pile. And best of all, the action that results from this rollover is delightful. The sand slides, we hear the queen's breath and the sand's swish as it goes. The cursor is freed from our control to tumble down on top of the sliding sand. The tumbling action has a child-like joy to it - not a dangerous freefall, but a sensuous rolling over and over - like a kid on a hill.

As a bonus, the propeller is now free of the sand. Drawn to the prop, the cursor touches it and again the queen's gaze follows. Again she leans forward and blows. 'Bing' - the prop spins from her breath, knocking the cursor to the edge of the screen. This is a forceful swat, not the least bit like the gentle tumble in the sand. The queen, as always, tracks the cursor's every move with her gaze.

The prop batting of the cursor is worth a few more iterations - it's fun to watch the cursor go flying. However, it doesn't feel like this will solve the puzzle, and the answer is probably lying below. Back to the sand pile and two more iterations, two more puffs, two more tumbles, two more sand slides. Each of these last two events is accompanied by a bonus effect. The propeller of the dirigible spins loudly, then stops. After the fourth sand slide, the Sphinx and the pyramid are clear, but the puzzle is intact. The queen's breath still responds to a rollover where the sand pile was, but now it only affects the cursor.

It is inevitable that one's thoughts would return to the propeller. Sure enough, the last puff, the resultant spin and the swat of the cursor are soon followed by the dirigible slowly moving off screen and triggering the letter. The puzzle has been solved, and there is one short cut sequence

to lead up to the reading of the next letter. The dirigible (flanked below by the swatted cursor) drifts across the card's boundary and triggers the spin of the card. On the back side, the dirigible slips underneath the flap, and opens the envelope. The letter slides out, and the reading commences.



Griffin and the Sphinx [G9G]
The Dirigible Opens the Letter

What do we see during this experience? First, we see the subversion of user expectations with respect to interface. This is inevitable in any game play. Good design requires that an interface should be easy to learn, efficient to use, and resistant to error.³⁶ However, a puzzle interface has to modify those values in order to *be* a puzzle. The puzzle must be difficult enough to be challenging, but easy enough that it is not frustrating.

How do the creators of *Ceremony of Innocence* deal with this challenge? They use a combination of cues and mis-directions to shape our behavior with respect to a pre-trigger (the sand slide) and a final trigger (the propeller).³⁷ The pre-trigger is not the first item to attract the viewer's eye. That is probably the dirigible, or the stamp. The dirigible will be an early target for rollovers and mouse clicks (especially the gondola, and the prop). However, at this point they will be fruitless. If the attention then turns to the stamp, both frustration and reward result. The frustration is the inability to cross over on to the stamp. One longs to click on the face, hoping for a trigger. The reward is the face following the cursor's path. The queen's attentive

³⁶ Jakob Nielsen, *Usability Engineering*. (San Francisco: Morgan Kaufmann Publishers 1993) 26

³⁷ The terms pre-trigger and trigger will be used throughout the thesis as part of the analysis of the gameplay. The pre-trigger is a user event that enables the gameplay to move forward. The trigger is the culminating user event, which finishes the puzzle and leads to the payoff. For a complete review of these terms see Appendix C

scan validates the user's agency. This has a two-fold effect. First, it makes the user a character in this event. This effect goes beyond a simple affirmation of agency, because the queen is a character (albeit a minor one) in her own right. (She may in fact partake of some of Sabine's pervasive aura). Her attention is a form of miniature proto-narrative interaction for the user. Second, her reaction acts as an immediate reward to encourage more puzzle play (and counter the effect of the blind alleys and false starts that users undergo).

This minor reinforcement doesn't really advance the puzzle. That won't happen until the user solves the pre-trigger - the pile of sand. Luckily, the sand is an easy pre-trigger. It only needs a rollover, and the hot spot is a large one (a roughly rectangular area covering most of what will be the Sphinx's head and the top of the pyramid). It is unlikely the user would miss this one. As soon as that happens, the solving of the puzzle is only a matter of time. The user will return to the top of the pile for two sets of reasons. First, one senses that this is the path to the solution. Second, the action (the queen's breath, the sand, the tumble of the cursor) is intrinsically interesting - it's fun to experience. Third, the uncovering of the structures is also a rewarding experience that adds visual interest.

An easy transition from the pre-trigger to the trigger has also been carefully designed. We have seen how the last two iterations of the sand slide also include the spinning of the propeller, accompanied by a large clang. This signals to the user (either overtly or subliminally) where the next step might be. It is inevitable that the user will follow that clue (especially since the propeller is an object of interest in any case). If, as Marty Behrens claims, the key to the new craft is the presentation of choice,³⁸ then the designers have indeed crafted this puzzle well. Its mixture of misdirection (the user's visual attraction to the queen and to the initially non-responsive propeller) and carefully guided behavior makes a pleasant puzzle that is mildly challenging. As such it is a good addition to the game's mix of easy and difficult puzzles.

The roles of the component media add to the puzzle's success. The card is beautiful; the queen is attractive. The use of movement during the micro-cut-sequences (the queen puffing her breath, the cursor tumbling in the sand slide, the prop spinning, the dirigible moving) is well done. This adds interest, and forms part of the narrative texture of the game. The sound adds its own impact to the puzzle. The music is pleasant (if melancholy) to listen to, and evokes the desert and loneliness. The queen's breath reinforces her sense of character and impact. Like the pre-determined motion sequences, these sound components are functional, building a narrative texture into the experience.

The transitional cut sequence is also effective. The dirigible drifts off to screen right, spinning the card when it does so. It continues to the other side, slides under the envelope flap in its transit to screen right, and opens the flap in the process. It is an interesting moment. The dirigible can be read as three dimensional, so when it slips under the flat flap, there is a moment of pleasant disorientation and re-perception (as if an optical illusion had just occurred). After the flap is opened and the dirigible passes, the envelope drops out from under with a satisfying thump, leaving the next letter to open and to read itself.

³⁸ Marty Behrens; *Interactive Screen Workshop*; (Banff New Media Institute; 1996)

Narrative connections

The game play, the graphics, the component media and the subordinate narrative moments all help to build this sequence's ties to the broad narrative concerns of *Griffin and Sabine*. In this sequence we see connections to character and to the themes of mystery, danger, death, quest, and gender.

Mystery is one of the major themes of the text, and this puzzle reinforces it. The gameplay in and of itself is mildly mysterious. Although they are well clued, the solutions are still withheld, pending testing and trial. This mild evocation of mystery through the game play is resonated more strongly in the graphic look. The ancient and exotic setting adds to the sense of mystery. In this regard, the Sphinx is the perfect visual metaphor, the ur-puzzle of classical literature. The gameplay itself reinforces the Sphinx's connection with mystery and discovery. The rollover spot for the pre-trigger button is in fact the Sphinx. At the beginning the Sphinx is hidden (covered with sand). It is the successful discovery of the pre-trigger that removes the sand and reveals the hidden Sphinx and pyramid. Thematically, this mirrors Griffin's search for the answers to his own riddles. We are in the same position as he is. It is too much to state that this minor effect immediately leads to a conscious identification with Griffin. However, the state of the play does set the user on a search for answers, and in this sense the user's experience mimics and re-enacts Griffin's experiences.

The themes of danger, death, isolation and quest are related in this puzzle. Although they operate through different modalities (game play, image, cut sequences, sound), the themes are consistent and mutually resonant with each other and with the story. The dirigible can be seen as playing the same role as Griffin: a lone Western traveler touring the exotic east. Once again, the Queen's power is demonstrated. It is her breath that blows the dirigible off the card, just as surely as it was Sabine's approach that swept Griffin out of his home. Griffin is now well into his lonely quest, initiated by a flight from the power of a woman. Although he no longer fears Sabine, he still senses danger on his journey. His entry into the land of "three thousand years worth of death" is frightening, and has already been signaled in the previous post card (we commented earlier on Sabine's mention of his "death wish"). His fear of danger while on his own is confirmed in the letter that follows. The music, although pleasant, has a sad and melancholy tone. The images of the desert, the Sphinx, and the pyramid have disquieting overtones of loneliness, danger and death. The image and the cut scene of the dirigible (especially combined with the Sphinx) evoke the themes of quest and journey.

The figure of the queen is ambiguous. She is beautiful, aloof, interested and possibly dangerous. She is a powerful female figure, reflecting Sabine in some ways (although her rather cold beauty doesn't have Sabine's softer feminine style). The queen watches the cursor (the user) in the same way Sabine tracks Griffin. When she intervenes, the cursor is moved, just as Griffin was somehow driven from his home by his fear of Sabine's arrival. Although the queen's effect on the cursor was somewhat comical on the sand slide, it was brutal during the propeller sequence. The cursor got clanged and thrown with great force. In either case, the Queen moves with sure authority, to great effect. The queen can be seen as a medium to translate the perception of

feminine power. She mediates from Sabine's effect on Griffin to her own (the Queen's) effect on the cursor, and therefore on the user.

Janet Murray argues for agency as a fundamental characteristic of digital narrative³⁹, and we exercise our personal agency through our unquestioned control of the cursor. The queen's unexpected assault on our agent is in some ways an assault on us. We not only perceive this narrative moment - we become part of it. As with the mystery and the Sphinx description above, we once again have an experience analogous to Griffin's (in this case unexpected forces and interventions). In both examples, this consistency of role between the user and Griffin serves to subtly reinforce the narrative resonance of the experience.

Griffin's letter

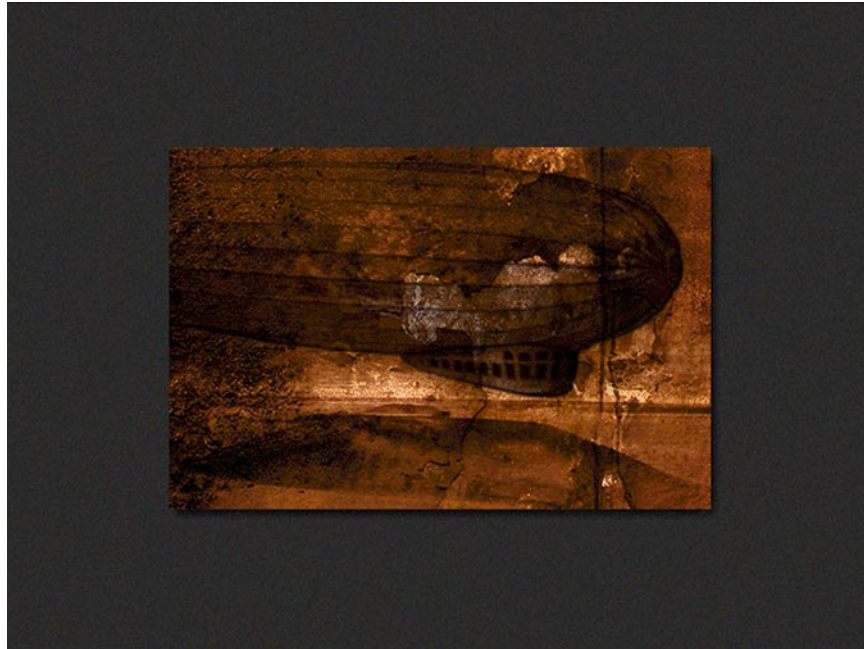
The cursor approaches the propeller, the puzzle is solved, and the transitional cut scene begins. The queen blows the propeller, swatting the cursor in the process. Her breath drives the dirigible (and Griffin and his story) to the next stage. The dirigible (flanked below by the swatted cursor) drifts across the card's boundary and triggers the spin of the envelope. On the envelope's backside, the dirigible slips underneath the flap, and opens the envelope. The envelope falls out (with an appropriate crumple sound), and the reading commences.

The letter reading can be broken into four movements. The movements are defined by the graphic look and feel of each sequence. They also tend to serve distinct narrative and emotional functions.

- The dirigible sequence (0:00 - 0:44)
- An introduction to Egypt (0:45 - 1:24)
- The long Anubis/Samurai sequence (1:25 - 3:30)
- The Minnaloushe sequence (3:31 - 3:52)

These sequences as a whole have their own shared narrative arc, and in the process feed the larger themes of the whole text. The dirigible sequence reviews character background and in the process reinforces the main story themes. The Egypt sequence serves similar functions, with a bit more specificity on the nature of Egypt and its importance to Griffin. The Anubis/Samurai sequence actively advances the plot, and in the process character is revealed through action. There is a form of faux-climax at the end of that sequence. The Minnaloushe sequence is a form of denouement - it doesn't really fit with the first three sequences directly. It does build character, and it serves to set up the next few cards (which are variations on Minnaloushe themes).

³⁹ Janet H. Murray; *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*. (New York: The Free Press, 1997)



Griffin and the Sphinx [G9G]
The Dirigible

Dirigible sequence

The dirigible sequence opens with a fade-in to a sepia toned sketch of an indeterminate but desolate landscape, presumably Egypt. The fade-in is followed by a whooshing sound of the desert wind, and then by a strong minor key piano chord, that slowly fades, and then is picked up by a spare tune. The wind and the piano feel both melancholy and ominous. The mood has been set.

A dirigible appears in the sketch, and Griffin's voice over starts. Griffin discusses death. He first refers to Sabine's claim that this trip was tied in with his death wish ("death wish you said"). He agrees he is preoccupied with death, but not his own. He stresses his aunt Vereker's death ("a hammer blow to me"), and muses that he was affected more by his parent's death than he has let on. "How can anyone let his parent go without some regret, some loss - no matter how inept they were at child-rearing." The melancholy wind and piano continue under his soliloquy.

The sequence supports the themes of death, introspection and loneliness. Griffin reinforces his sense of his own deprivation, loss and confusion. On one level he has lost both his beloved aunt, and his parents. On a deeper level, he is so angry and conflicted with his own parents he can't decide whether to grieve or to castigate them.

While this goes on in the voice track, the visual shows the dirigible slowly rotating. It slowly pivots to screen left, going from a profile to a head on view in four fades. At the end of the soliloquy, it pivots back to the right and slowly exits screen right. As it leaves, its image blurs. When it has passed, the landscape it had covered appears to resemble a skull mask.

We've seen earlier that the dirigible can be seen as standing in for Griffin: a lonely western wanderer, impelled by his queen to drift in the lost land of the Nile and death. If so, the revelation of the skull-like formation from under the dirigible strongly reinforces the connection of Griffin, journey and death.



Griffin and the Sphinx [G9G]
Array of Glyphs

Egypt sequence

The Egypt sequence is a short transitional one. It continues the thematic setup of the dirigible sequence, and leads directly to the letter's main sequence: the Anubis/Samurai encounter in Alexandria.

The visuals open with the same sepia landscape from the previous sequence (including the putative skull). The music also continues underneath as before. The background changes color early on in the sequence - going from the original sepia, to a sand tone (Egypt). On the sound track, Griffin muses on Egypt - the "obvious step" for him to take: "there's three thousand years of death here". As soon as those words are out, the screen background turns blood red. An array of Egyptian glyphs comes up, as Griffin notes that the Egyptian word for sculptor is "he who keeps alive forever" - the "perfect place" for him. The sculptor quote is punctuated with another long minor key organ chord. Griffin's fear of and fascination with death is clear.

A sand colored pulsing spot opens up in the background, as Griffin begins the story that fills the next sequence...



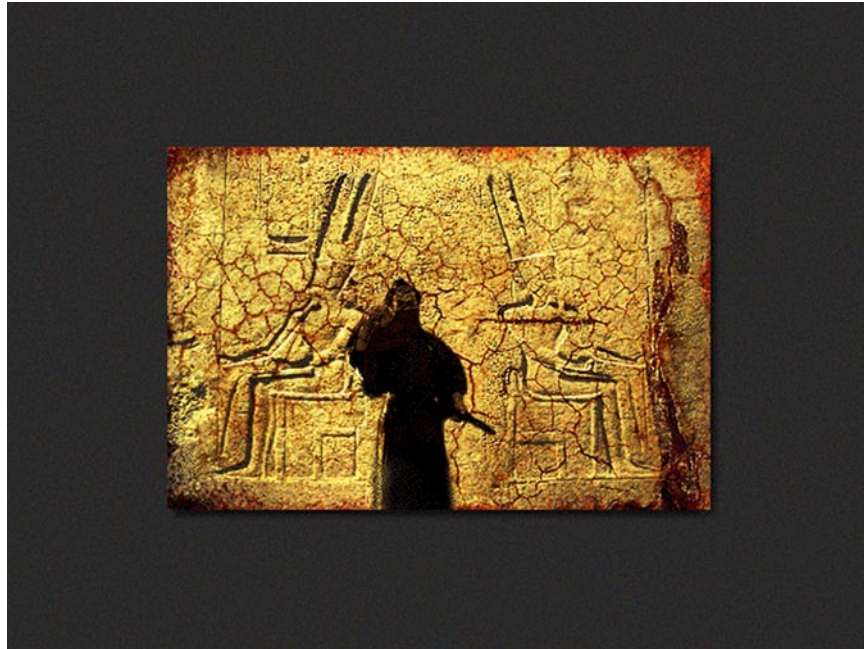
Griffin and the Sphinx [G9G]

Anubis

Anubis/Samurai

This sequence is the heart of the letter. Griffin's story advances the plot significantly, and in the process reinforces our sense of his own character and contradictions.

The sequence is Griffin's story about his trip to an artifact shop in Alexandria. While at the shop, Griffin sees a painting of the Egyptian death-god Anubis. As he speaks, the pulsing sand colored spot in the movie's background becomes a rectangle. When his voice over gets to the name "Anubis", a red and black silhouette of Anubis fills the rectangular section. In his story, Griffin sees an image over the Anubis painting - it is a reflection of a Samurai in the shop window he is looking through. On our screen, the Anubis figure has faded out, and a samurai image has appeared.



Griffin and the Sphinx [G9G]
Samurai

Griffin's voice relates how he then spun around to see what was reflected - and there was nothing there. Turning back, the samurai reflection remains, staring coolly back at him. Griffin recounts a "flash of recognition between us!" The moment is punctuated by a gong on the sound track, and a dissolve on the picture track. The samurai blurs momentarily, and the background fades from Egyptian glyphs to Japanese ones. The samurai bows to Griffin.

Griffin's voice continues. For him the appearance of the samurai was comforting, despite its clear hint of insanity. Griffin was pleased to have such a bodyguard on his side - a guardian angel with such an aura of absolute self-belief. In any case, Griffin had so "little trust in my own perception of reality" that it was a relief to embrace an impossibility. Besides, he was scared traveling alone.

This section is the most important part of the letter. This shop and the encounter with the samurai become critical later on the story. This shop will become the gateway through which the two lovers can join each other at the conclusion of the trilogy. They can travel the same path the samurai has demonstrated.

At the same time, Griffin has shown us much about his character. His issues around death, isolation, fear, and self-doubt are once again revealed and reinforced. He is profoundly conflicted. If his character is in fact fragmented, and if he is schizoid in a clinical sense, the incident becomes much clearer. If one looks in a reflection, whose eyes are watching you? If one spins around to see the intruder, and there is nothing over your shoulder, whose reflection have you been seeing? It's not surprising there was a "flash of recognition" between Griffin and

the samurai. The samurai was he, or at least a part of Griffin that was trapped and blocked inside. Griffin's main personality was withdrawn, frightened, limited, and consumed with self-doubt. He could not recognize or accept his own inner strength, because he did not trust himself. And so, Griffin's warrior within was segregated and blocked, for fear that he would act.

This bleak portrait is brightened by one development. We sense that Griffin at this point is at peace with his own contradictions. He knows that what he perceives is impossible, and that it may well mean he is crazy. However, he seems to feel that accepting the possibility of insanity (with a powerful protector as a built-in bonus) is preferable to a life of constant suspicion and self-doubt.

If one accepts this reading, the encounter is doubly ironic. The shop and the samurai are not the end of Griffin's metaphysical discoveries. On the contrary, they have opened the way for a much stronger personality waiting within Griffin's head. Sabine and he can cross this same bridge to find each other. In that joining, the internal isolation may end, but who will survive the merge?

He ends this section with his closing "I love you" to Sabine, followed by his aural signature "Griffin". The picture underneath starts as a bold draughtsman's sketch of three schematic pyramids over a subdued sand-colored glyph field. As his name is read, the picture morphs to include the head of a Sphinx. A low, melancholy string chord trails off in the sound track.

This closing serves two functions. First, it acts as a sort of faux-climax, emotionally capping the letter's narrative arc.⁴⁰ We have seen the set-up (character and themes), the complication (the appearance of the samurai), and the development (Griffin's acceptance). The strong (and ominous) Sphinx image, synchronized with the finality of his aural signature and the trailing musical chord, effectively finishes the main section of the letter. The second function speaks to character. The voice and picture track conjoin Griffin to the Sphinx. Our hero is welded to a powerful image that combines mystery with death.⁴¹

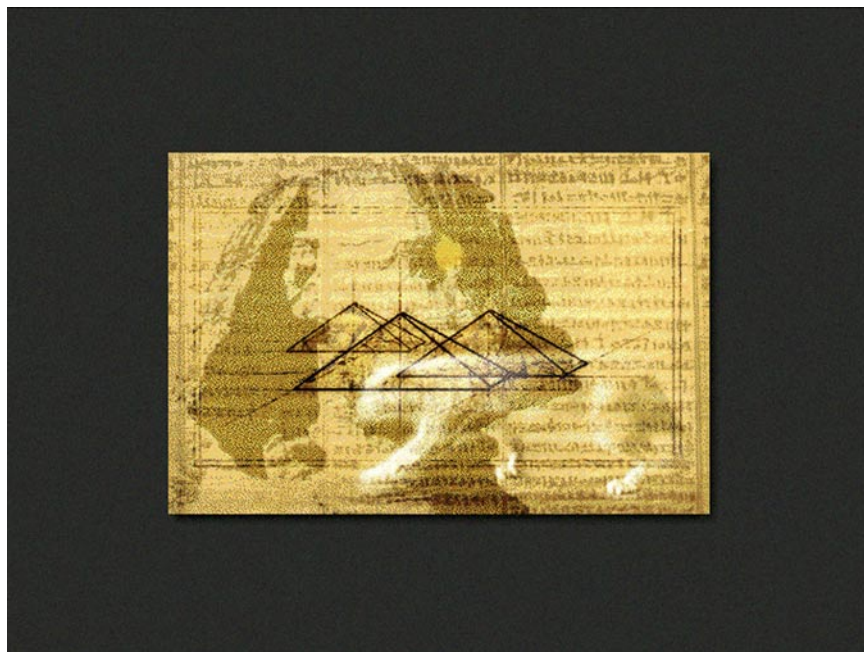
Minnalously Sequence

If Griffin's final signature and Sphinx image signal the conclusion of the letter's main arc, the Minnalously sequence is a denouement. In form it is a post-script, in tone and function it stands apart from the rest of the letter. The sequence opens with his statement: "Please notice, I'm choosing reassuring thoughts!" The statement serves two purposes. First, it confirms the way he is processing his encounter with the samurai. For the moment he is rejecting fear and doubt, and

⁴⁰ This framework for the narrative arc is taken from Kristin Thompson. Her full model for the arc is: set-up, complication, development, and resolution. From Kristin Thompson, *Storytelling in the New Hollywood*. (Cambridge: Harvard University Press, 1999).

⁴¹ This conjunction is already built into the story. Griffin's very name refers to a variation on the Sphinx tradition. The Gryphon is also a halved concoction from the world of myth and mystery. Griffin the artist confirms this connection by using the Gryphon as his corporate logo. The Gryphon's nature is half-bird, half-lion, which connects Griffin to the bird and wing imagery throughout the trilogy.

is ready to accept contradiction and complication.⁴² The next statement is: “The cat you asked about awhile back is Minnaloushe. He’s self sufficient - comes and goes with the moon.” As this is read, we see Minnaloushe and the moon stroll past the figure of the Sphinx and the sketches of the pyramids.



Griffin and the Sphinx [G9G]
Minnaloushe and the Sphinx

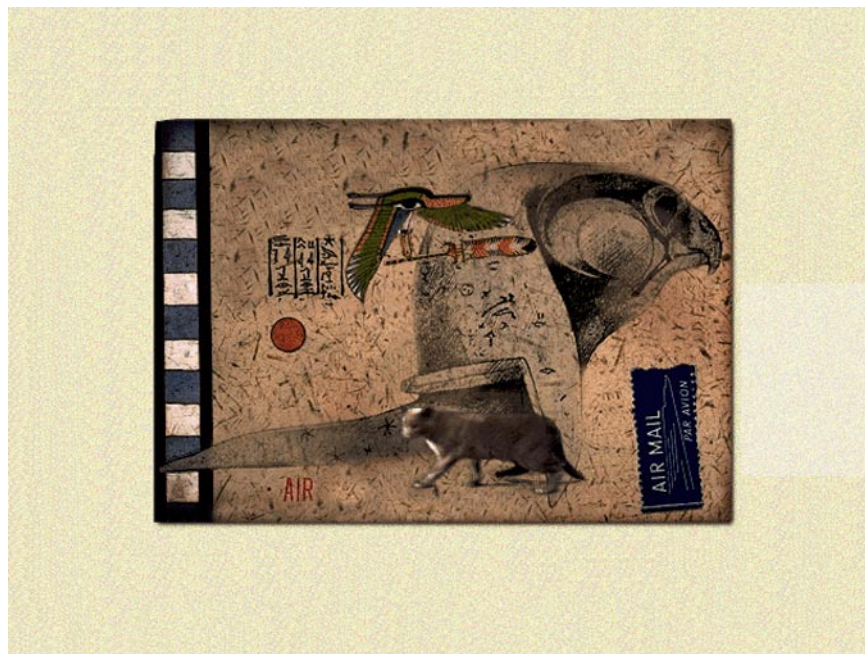
This denouement performs several functions. It adds a lighter domestic tone to the darkness of Griffin’s Egyptian experience, and in the process colors his character. It ties up an earlier loose end - Minnaloushe was introduced briefly in G4S. Soon after Sabine moved in to Griffin’s apartment, she made brief mention of the cat (again in a post-script): “Who does the grey cat belong to? Should I feed it?” It took him until this letter to answer the question, but the intensity of the Minnaloushe/cat theme is going to increase.

⁴² Unfortunately for Griffin, this temporary acceptance is not destined to last. He will soon follow his apparition to Japan, where once again his confusion will begin to grow (Griffin’s next card: “Learning to say Noh” [G11G]).

Minnaloushe

G9G's Minnaloushe denouement sets up a narrative connection to three of the next four cards. Two of them explicitly name and use Minnaloushe. The third uses Minnaloushe's image directly, and also creates a Minnaloushe avatar - the armored samurai/cat.

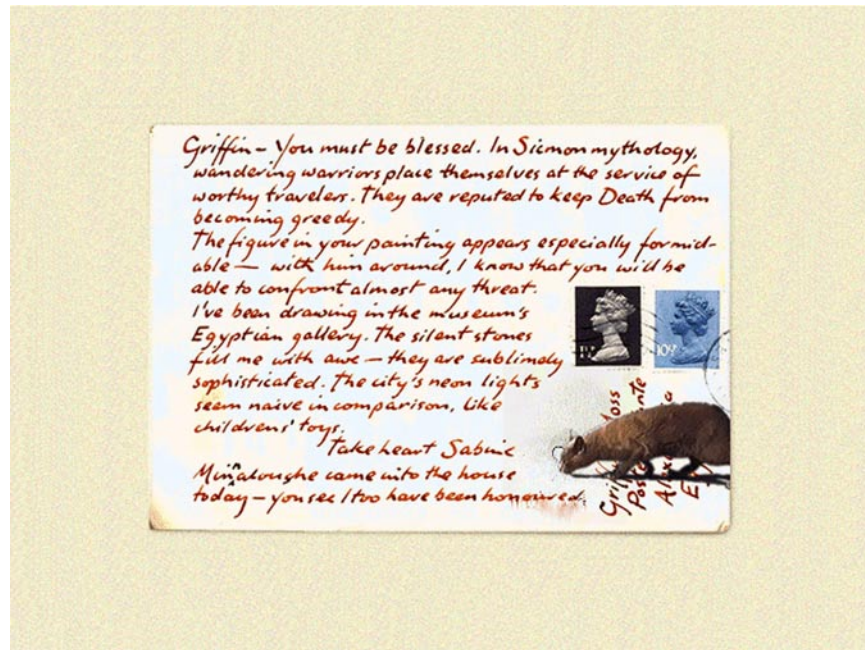
G10S continues the Egypt theme. The puzzle on Sabine's card is dominated by a background figure of Horus, Egypt's falcon god. Horus's back is being stroked by a feather held by a hovering and stylized Egyptian bird. The game play involves clicking on the card (on the bird for the fastest results) to trigger the successful conclusion. The pre-trigger is that the first two clicks on the bird result in an off-screen "meow", followed by Sabine's voice softly calling "Minnaloushe, Minnaloushe....". The interruption is then punctuated by Minnaloushe himself, who strolls in from screen right, and in the process temporarily scares away the stylized Egyptian bird. In mid-stroll the cat glances back to the right (ostensibly at the fleeing bird, but also perhaps at Sabine's voice). He then continues forward to exit on screen left.



Falcon [G10S]
Minnaloushe and Horus

Minnaloushe's presence continues on [G10S]'s text side. Sabine adds yet another Minnaloushian post-script: "Minnaloushe came into the house today - you see I too have been honored." These words are reflected in some subordinate gameplay embedded within the card's text (a relatively rare phenomena in *Ceremony*). The presence of the cursor during the reading

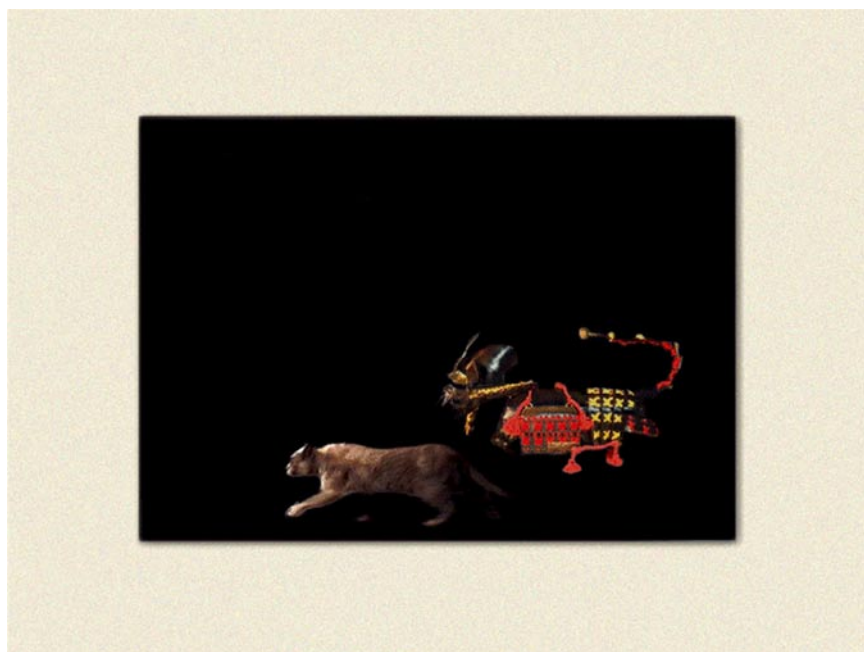
signals that some interaction is possible.⁴³ As Sabine reads the words, you notice there is the picture of a milk bottle on the card. Knowing that this card contains interactive possibilities, you're certain to try clicking on the milk bottle. Sure enough, one click and the bottle tips and spills. In the process it smears the ink on the last word of the card ("honored"). True to his feline nature, Minnaloushe strolls in (the same right to left direction from the puzzle part of the card), stops, licks up the spilled milk, and strolls to a screen left exit.



Falcon [G10S] Minnaloushe and Spilt Milk

The next cat image is in [G12S]. The [G12S] puzzle is of an armored samurai cat. It is presented in profile, facing screen left. When you click on its butt the first time (which has to be repeated as part of the ultimate trigger sequence), the head hinges up, and Minnaloushe crawls out of the body, and then continues, exiting (once again) screen left. Later, when the user completes the successful trigger to solve the puzzle, the samurai cat exits screen left as well.

⁴³ The maintenance of cursor presence is a convention signaling the comparatively rare inclusions of gameplay within the lexia.



Samurai Cat [G12S]
Minnaloushe Exits the Samurai Cat

Minnaloushe is even more prominent in [G13G]. The card is his. The face of the card shows a half-man (naked body) half cat (head) running in the night. The puzzle is one of the simplest to solve. A single click triggers the payoff, which is a cut-sequence movie of Minnaloushe running in the night. The sound track is *The Cat and the Moon*, a W.B. Yeats poem,⁴⁴ read by Ben Kingsley. (Kingsley also reads the excerpts from the other Yeats poem that gave *Ceremony of Innocence* its title.⁴⁵)

⁴⁴ W.B. Yeats, “The Cat and the Moon”, from *The wild swans at Coole and other selected poems*. (New York: The Macmillan Company, 1919). See Appendix F for the full text of the poem.

⁴⁵ W.B. Yeats, “The Second Coming”



“Running To & Fro The Moon” [G13G]

Minnaloushe runs

The poem confirms that Minnaloushe is male, yet makes the strong connection to the female moon: “When two close kindred meet, what better than to call a dance?” In the movie, Minnaloushe’s run through the grass becomes a flight to the moon, as Minnaloushe dances with the moon, and takes on moon-like characteristics: “...his pupils will ...change, and from round to crescent, and crescent to round they range.” The bond is strong, he will continue to “...[lift] to the changing moon his changing eyes.”

The casual mention of Minnaloushe in [G9G] has set up a series of interventions by and references to the cat. What is the narrative import of these interventions? This question is more important than it might seem from a bare reading of *Ceremony of Innocence* as a text.

A comparison with *Griffin and Sabine* reveals an interesting fact. Minnaloushe figures in one of the largest systematic set of changes between the two works. No references to Minnaloushe were dropped in the translation from book to game. Several additional instances of Minnaloushe were added. Some were brief puzzle animations consistent with the text ([G9G]). Others were complete additions to either the face or the lexia ([G10S] Face, [G10S] Lexia, [G12S] Face, [G13G] Face). The [G13G] poem took up a fair bit of time (1 minute 30 seconds), and significantly added to the textual information of the book’s lexia. This is a systematic and significant pattern of intervention.⁴⁶ These changes were not undertaken lightly or accidentally. These interventions result in two sets of related effects: one on character, the other on theme.

⁴⁶ See Appendix H – Table of Minnaloushe Variations: Books to CD-ROM

Minnaloushe and character

The Minnaloushe character of *Ceremony of Innocence* has become a much more rounded one. The Minnaloushe of the book is a bit of a throwaway. There are three brief references (noted above) to the cat. The cat adds a minor bit of narrative flavor, but carries no great impact. The Minnaloushe of the game is another sort. He is fun to watch, and has a definite personality. His stroll across the cards in [G9G] is a delightful example of feline sensuousness. The strolls in [G10S] continue that feeling, but also add to his character. He is perfectly capable of scaring a bird, mildly curious about the effect of doing so, and very willing to lap any milk that the user has so thoughtfully tipped over for him. The last event develops a direct relationship between Minnaloushe and the user. The relationship is brief and tenuous, but that's consistent with the nature of human-feline bonding. In any case, his personality and actions have reinforced the agency of the user, and therefore the strength of the game's magic circle.

The double Minnaloushe in [G12S] is a treat. The armored samurai-cat is funny to look at, and funnier to watch. The foundation of a cat's personality is its dignity ("alone, important, and wise" in Yeats' words⁴⁷). It is delightful to see the self-important samurai-cat reconciling its feline dignity with its ridiculous suit of armor. Having the real Minnaloushe emerge from its encumbered avatar is a welcome bonus. More substantively, the samurai-cat's dignity is sorely pressed by the nature of the game play. The solution involves clicking the samurai-cat on the butt, then again on the head. Each click is accompanied by a resounding clang (the cat's armor) and the cat's indignant response. This cat is a cyber-kitten, always ripe for the teasing and amusement of the user.

The Minnaloushe added to [G13G] is of another order, however. The book had the same picture, but no identifying name, and no poem. The game names the half-cat/half-person as Minnaloushe, and ascribes the full Yeats poem to him. The poem and the movie show the freedom and joy of Minnaloushe's life. This creature can dance with the moon, and call her kindred. By connecting him so closely to the moon, they not only add to his power, but they show the opportunity for growth in his "changing eyes". Minnaloushe's qualities of "alone, important and wise" in this poem are not the humorous counterpoint they might be with respect to the samurai-cat. However, the irony is that Minnaloushe is not alone. He has bonded with the moon, but just as surely she has captured him. He can dance and change and grow, but his change is wedded to the moon - "from round to crescent, from crescent to round".

Minnaloushe and Griffin

Minnaloushe is Griffin's creature, and this ties him to Minnaloushe's world. Griffin's acceptance of his internal samurai warrior in [G9G] is echoed in Minnaloushe's emergence from his samurai protection in [G12S]. The [G13G] Minnaloushe in *Ceremony* is half-cat and half-man. Griffin is connected to both the Gryphon and the Sphinx, and the implication is that he too

⁴⁷ W.B. Yeats, "The Cat and the Moon"

is a split entity. Minnaloushe's split nature reinforces the connection to Griffin. This in turn strengthens Griffin's own disjuncture and therefore his ties to the powerful mythical creatures.⁴⁸

Minnaloushe throws Griffin's isolation into sharp relief. They are both isolated creatures. Minnaloushe's isolation, however, is the isolation of self-reliance and confidence ("alone, important and wise"). The solo cat flies to the moon because he wants to. Griffin's isolation is the isolation of retreat and fear. He flies his home because he does not trust the woman who loves him. The game doesn't explore this, but it is possible that Minnaloushe is the model for a more complete and whole Griffin. Minnaloushe, like Griffin is a split, but the halves are harmonized, and resonate into a stronger whole. Minnaloushe doesn't fear his love, he dances with her when they will, and flies when he will. The sympathetic connection (manifest in his changing eyes) may bespeak of a healthy connection between two free entities: Minnaloushe and his muse. Nor does Minnaloushe fear Griffin's own muse. The cat is free to "honor" Sabine or not, depending on his mood. Griffin, meanwhile, struggles to reconcile his conflict between loving Sabine and fearing her.

Narrative sensibilities are widely distributed throughout the Griffin and the Sphinx puzzle/letter [G9G], and are further reflected in the subsequent series of Minnaloushe cards. Both the media design and the interactive design reflect character and several of the central story themes: mystery/discovery, insanity/reality, and love/death. The interface design includes the subversion of user interface expectations. This subversion, which centers on the role of the cursor, reflects the themes of the narrative. The Minnaloushe sequence adds depth of character, providing a counterpoint to Griffin's personality.

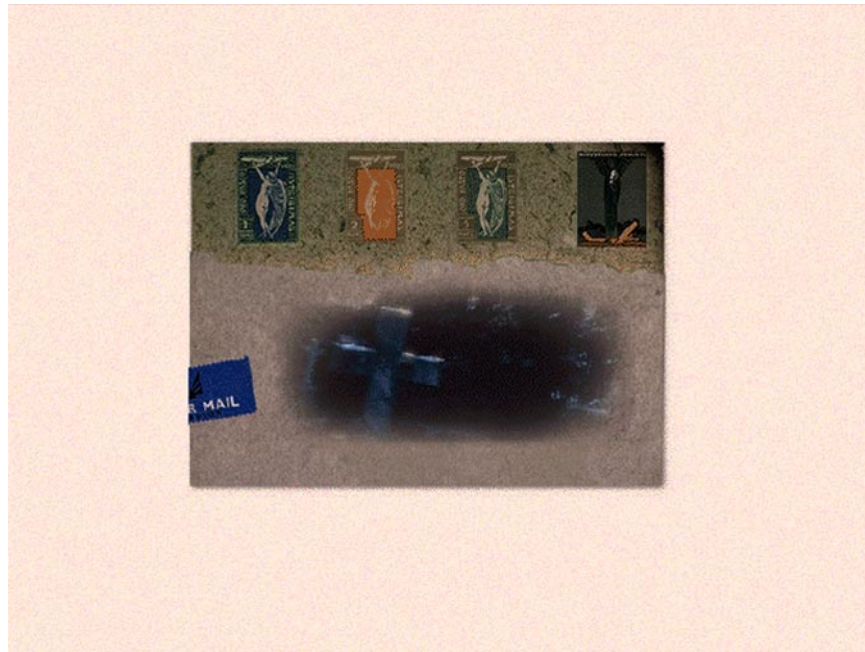
Sabine and The Cemetery [G18S]

A detailed review of Sabine and the Cemetery [G18S] provides additional perspectives on the relationship between interaction and story. It continues the analysis of theme, character, and emotion from the point of view of the second protagonist.

The puzzle and the card

The puzzle opens on a plain gray card with no address. Four stamps line the top. In the first three, a bright angel holds a plane up in the sky. In the fourth, a dark angel towers over a crashed plane. The rest of the card is empty. The sound track is disquieting: creaky gates, rustling leaves, soft wind. Clicking has no effect. After a while, the rolling of the cursor seems to open up an oval window in the center of the card. A muffled church bell sounds, and a movie plays in the window. As the mouse rolls forward a scene is revealed - the gray headstone of a cemetery.

⁴⁸ Each of the mythical half-creatures could act as forces for either good or evil, although generally the gryphon was on the side of good and the Sphinx on the side of evil.



The Cemetery [G18S]
Beginning of the movie - the entrance

Experimentation with the mouse seems to yield some sense of control, but it is inexact and inconsistent. Rolling forward tends to cause the movie to track forward into the cemetery, rolling back retraces the steps backwards. But it is frustrating. The movie is handheld and shaky, with a QuickTime low-res non-aesthetic of motion. The bumpiness of the movie makes the journey uncomfortable, and unpredictable. Headstones loom, and block, and the camera jerks its way in and around them. Attempts to control the direction with lateral motions are very frustrating. The results are random. Sometimes the camera goes left and right with the mouse. Sometimes it goes against the mouse. And sometimes the lateral rolling results in a forward move, or a backward one.

At one point, the camera view starts to truck strongly to the left of the screen. Furious attempts to control this move, or to go to the right, are useless. The point of view bobs forward and back, left and right. The effect is maddening. The journey is blocked, the user is trapped, and there is no end in sight for this ghostly journey.

Finally, this particular block is passed. Some bushes appear in our path. The sound changes - the mournful church bells give way to the chirping of insects. The path clears, and a stone angel appears ahead of us in a small clearing in the headstones. Insects and a bird chirps, the sky seems to brighten slightly. Rolling forward, the angel is reached. She is approached, and fills the screen. A crow sounds, and the card begins to pivot over. The puzzle is solved.



The Cemetery [G18S]
End of movie - the Stone Angel

The card tells Sabine's story. She congratulates Griffin on his survival from drowning and death. She is impatient for his return, and wastes away the time designing and sketching stamps. Frustrated with the crowds in the museum, she works in Highgate Cemetery, "communing with her sisters".

Narrative and the Cemetery puzzle

This card is near the end of the second section. In the previous letter, Griffin has almost drowned trying to find Sabine's islands, while she waits for him in England. He attributes his salvation to his Samurai avatar (see the Sphinx card earlier), and to his connection with her. It is her thread that he chose: life over death. He seems to be over his fear of her, and is ready to come home. This card shows the love to whom he returns. The picture is contradictory. She loves him as well, but her love is connected with death. The stamps, the stone angel image, and her reference to "her sisters" make clear connections between woman and death. What is Griffin returning to?

The next card will reveal more ("The Second Coming" [G19G]). His imminent return is confirmed. He says he is coming home, and that he knows who she is, what they are and "what we will be to each other". Uneasy words, given that the gameplay in the next card sends the Rocking Boy to his death in a flaming abyss.

The Cemetery puzzle has its own dramatic arc. The setup is the initial presentation of the card - with the blank face, the stamps, and the gate creaking sound effects. Rolling the cursor forward

opens the window, and finishes the setup phase. The image of the gravestone and the sound of the church bell begin the next phase - the navigation of the cemetery. The complication is the misdirected cursor rolling, and the development is the continued navigation. This reveals more grave imagery and sounds. The resolution is the successful attainment of the stone angel (the trigger), and the flipping of the card (the payoff). In the context of the puzzle's arc, Sabine's voice reading the card can be seen as denouement. In the context of the story itself, her words are much more important, and play their part in the broader narrative arc of the story (see above).

Remediation of the book - component media

We have seen the interweaving of love, gender and death in this card. The use of media in the game supports and amplifies these themes. The sound and the movie have already been noted: The creaking gate, the rustle of leaves, the muffled church bells, the crow - all evoke sadness and mourning. The cemetery imagery confirms the connection of these evocative components to death.

Sabine's voice reflects her contradictory role. Isabella Rossellini's performance is understated yet powerful. She feels soft and warm and concerned. However, the emotional quality of her voice is at odds with the narrative impact of her words. The connection to "cemetery" and "communing with her sisters" is too dissonant to ignore. These words are rendered more frightening by the gentle voice that delivers them.

Analysis of the gameplay

This was one of the more frustrating puzzles. The lack of a cursor made it slightly disorienting to begin with. There was no clear focus for our attention to the interface. The disorientation was amplified by the lack of a clicking function, and by the delay of effect of the operational variable. The rolling of the mouse did nothing until the gate finished creaking. Then the window opened, and the tracking forward commenced.

The interface design was diabolical. A mouse can roll up, down, left or right. Typically these directions are mapped against the screen space with a one-to-one directional correlation. This is a fundamental characteristic of the classic GUI. We count on this consistency as part of the scaffolding that maintains our agency and immediacy. However, the directions for this puzzle are mis-mapped on purpose. Up and down work as expected, but left and right are designed to confound. Rolling left actually tends to take the cursor up the screen. Rolling right brings it down. As a result, any fine corrections in direction are counterproductive. The "correct" path to take is to consistently roll the mouse forward. It will proceed to navigate its own way through the cemetery maze. Any motion to the right perversely rolls the mouse back. The effect of the interface perversion is amplified by the nature of the QuickTime VR movie it is navigating. The movie is relatively low-res, which makes an understanding of the precise relationship between mouse and motion impossible. To make it worse, it is shot in a jerky hand-held fashion, which accentuates this effect even more.

The result is an interface experience that is puzzling and frustrating. This outcome is appropriate to the story, of course. Griffin is puzzled and frightened by Sabine. The reader finds his fits and starts frustrating, even though they are at the heart of the plot. Griffin is beset by fears and desires, and lurches back and forth trying to navigate his own heart. Finally, the mystery of this interface, and the other-worldliness of its imagery, presage the conclusion of Section Two in the next card.

Griffin is about to discover that he and Sabine are not of the same world...

Selected Themes

Griffin and Sabine and *Ceremony of Innocence* share a number of narrative themes. These themes are reinforced in the books by the graphics and by the use of script or font choice. The close readings of Griffin and the Sphinx [G9G], the subsequent Minneloushe cards, and Sabine's Cemetery card [G18S] show that narrative concerns are supported in the CD-ROM by the same means, and by the use of other component media: additional graphics, audio, moving images, animations, and the voice performances. In addition, the close readings reveal that narrative elements are also embedded within the gameplay. The central narrative themes and the characterizations of the protagonists are reflected in the interactive design of the puzzles.

The findings from these particular close readings can be verified and extended through a broader look at the work. This broader look examines the relationships between narrative and interactive design, but is still grounded in the instantiated detail of the gameplay.

Themes and their reflection in game play

The many themes and sub themes of the story form a tangled skein (or knot, as alluded to in the title of puzzle [S19G] - "The Gordian Mirror"). This compromises the separation of individual strands, but privileges the consideration of various combinations and regroupings. Two constellations of themes seem both interesting and related. The first is a grouping around themes of death and love and rebirth. The second is a grouping around quest and mystery and discovery. Both thematic constellations are important to the story. Griffin and Sabine spin a complicated dance. His love for her is a powerful attractor, but it is contaminated by fear. The attraction/fear is justified by her contradictory characteristics: a powerful and optimistic life force, and a persistent connection with death. Her character is also a mystery, and as such is consistent with the second constellation of themes. The story is a tale of mystery, quest, and discovery. Griffin seeks to find Sabine, flees from her in fear, and then re-dedicates himself to finding her no matter what the consequence. The story's ambiguous ending brings together both constellations of themes, and at the same time begs the question of what Griffin found and what became of him. Throughout the CD-ROM experience, these intertwined groups of narrative themes are reflected in the gameplay itself.

Love, death, and rebirth

The puzzles frequently associate both imagery and gameplay with death. In many of the games the payoff includes death. Some of these are closely associated with the cursor function. In “Pierrot’s Last Stand” [F18G] Pierrot dies in flames. In “The Alchemist” [F6G], the climbing boy falls from the wall when the alchemist’s eyes (the cursor) lose sight of him. Other payoffs involve the death of a key figure, or the evocation of death-like imagery. In “The Second Coming” [G19G] the Moon Boy (also our guide to entering and leaving the game) falls off a precipice into a flaming abyss. “The Hung Boy” [S17G] also falls to his death. The banana kills the apple lover in “Frankie and Johnny” [F14G]. The Red Head [G6S] relies on deep red and black hues to set up a creaking door that opens into the abyss (flanked by church bells). When the cursor enters that door, a crow appears, the cursor is swallowed and the game ends. The text on the reverse side refers to a church that is “steeped in death”. All of these but the last are on Griffin’s cards, and the deaths of the male characters can be seen to be associated with him. Some of the gameplay “deaths” are metaphorical - the death of user agency. In both of the cards belonging to the villain Frolatti ([S9F] and [S12F]), the user has no control or input.

Sometimes the relationship between theme and gameplay is there, but is complicated by considerations of style. The games are designed with wit, and often the results are delightful. Somehow the heaviest of themes can be modulated and translated into whimsical analogues of more serious concepts. In the examples of the cursors being eaten, these consumptions can be viewed as a kind of death of the cursor. However, in the Islands Map [F7S] the swallowed cursor can still be moved, and is seen trapped in the barred stomach of its predator. In the game’s first card, the Parrot [F1S], the cursor is eaten, but this “death” is followed by the cursor’s rebirth as the Parrot itself.

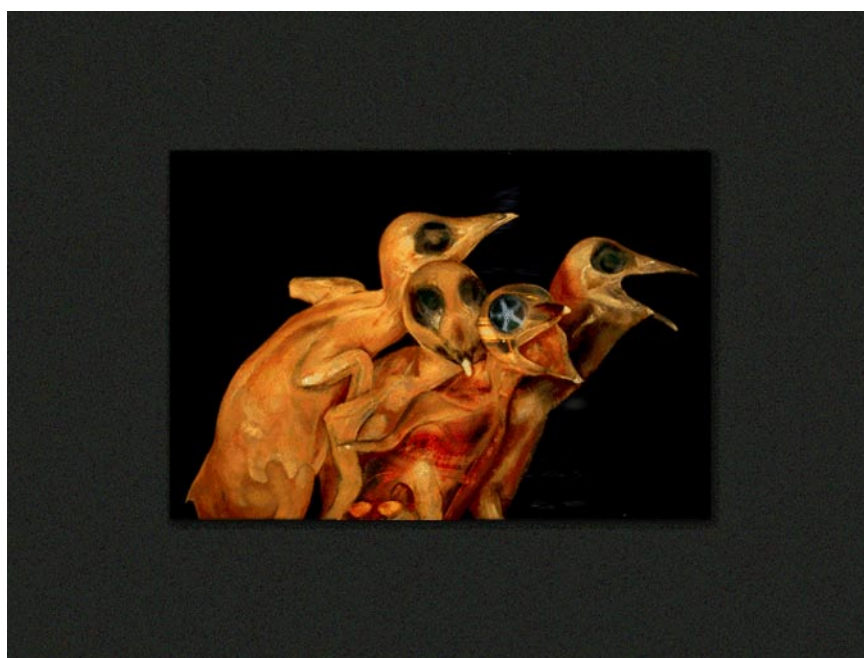
The Lizard [F3S] exhibits successive evocations of love, hate, death and rebirth. The puzzle is a dance between two ambivalent partners: the lizard and the butterfly. The butterfly (the user) frees herself and becomes the cursor. When she ventures near the mouth of the lizard, she is swallowed up by the lethargic beast. However the effect of this aggression is surprising. The lizard molts and is reborn. The butterfly’s role changes from prey and catalyst to goad. The butterfly’s touch chases the reborn lizard from his comfortable home through to the other side of the card, triggering the payoff spin of the card. Their uneasy relationship continues. This is one of the few cards with interaction on the text side, where they reappear and she has the power to drive him off once again. The dance is subtle, with overtones of attraction, antipathy, connection, death, and rebirth. The butterfly-lizard relationship mirrors the main relationship of the story: Sabine’s presence catalyzing Griffin’s awakening, then driving him from his comfortable and accustomed home.

Mystery, quest, and discovery

It is not surprising that *Ceremony*’s gameplay evokes mystery. Any puzzle is a mystery to be solved. What is interesting about these mysteries is the wit and craft with which they are constructed and presented. The Painted Lady [G16S] is a mysterious and voluptuous figure who

is revealed through the actions of the cursor-paintbrush. The card actually has two stages of a reveal-discovery. In the first, two pencil sketches are revealed by the cursor's repeated rollovers. In the second, the far more developed Lady is revealed. This part of the card reeks of sex and sensuousness. Her figure is buxom, her setting is romantic, her face averted yet alluring. Her mixture of mysterious countenance and erotic availability is the perfect visual object for the pleasure of the male gaze.⁴⁹ In the payoff to this mystery, the paint drips off the page, taking her with it. Like Griffin, our hard work at revealing the muse is not fully rewarded. At the moment of revelation, she disappears.

Discovery through the cursor's revealing action is present in other cards as well. In "The Blind Leading the Blind" [F16G], the invisible cursor plays over a row of chicks begging for food. The cursor reveals a stylized version of the birds' innards. If the cursor is held over a bird long enough, the inner lights spreads to its eyes, which develop a star-like image. Once all four of the birds have reached this state of revelation and transcendence, the puzzle is solved. In a nice bit of thematic continuity, Griffin asks for a picture of Sabine in the closing text of this card. Ironically, the next card (Self Portrait, [F17S]) does have her picture, but it is hidden. We must discover her within a volatile flock of crows, which swoop and swarm, and occasionally outline her face.



"The Blind Leading the Blind" [F16G]

There are many variations on the theme of seeking and discovery. A subset of these is the cards with doors and latches that cue the discovery of the pre-trigger and final trigger events ("Learning to say noh" [G11G], Red Head [G6S], Spinning Top [S7S]). Another group of cards

⁴⁹ Laura Mulvey, *Visual Pleasure and Narrative Cinema*; (paper presented at University of Wisconsin; 1973)

use objects that disappear or transform to reveal important information. The revealing objects include the entire card, a marble slab, a sand pile, and an armored cat (Sfumato [S10G], "...Sketchbook" [G5G], Sphinx [G9G], and Samurai Cat [G12S]). In two cards the pre-trigger enables the peeling away of part of the envelope to trigger and reveal the final payoff (Anatomy Lady [F9S] and Wave [G17G]).

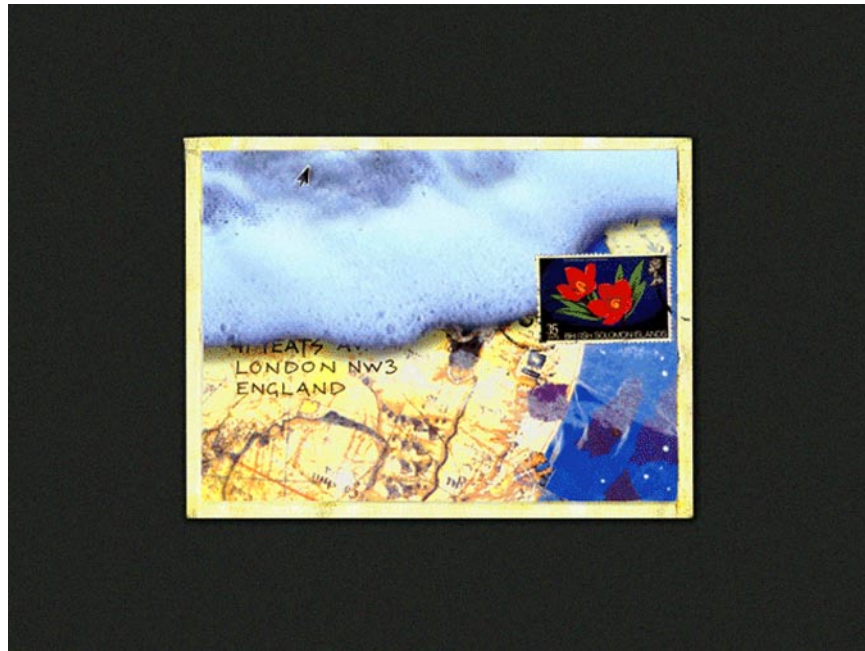
With all of these puzzles, we've seen that variations on mystery, discovery and revelation are pursued. One of the finest puzzles in the game plays on similar themes. "Drinking Like a Fish" [F2G] shows a fish, trapped in a wine goblet. As the cursor plays over the card, its clicks result in various muted sounds. However, clicks on the glass elicit a rewarding tinkle. After a few of those the goblet breaks, and the fish swims happily away. The shock of the glass breaking is visceral. Early in the game (it is the second puzzle) it sets a high standard for unexpected discovery and sudden reversal of paradigm. The fact that the fish is free to roam presages Griffin's upcoming odyssey. His voyage of discovery is just beginning.

Story, gameplay, and the role of the cursor

Analysis by theme reveals several gameplay components that enhance narrative experience: cues, pre-trigger and trigger events, payoffs. The treatment of the cursor is another recurring narrative device. There is more to uncover here; cursor remediation is an important development in the narrative use of interface.

In Anatomy Lady [F9S], the cursor is initially absent. Very quickly a flower bud opens at top right, and the cursor tumbles down into play. There is no time for false clicks, mouse rolls or other user behavior. The tumble serves as the entrance for the piece, emphatically setting up the gameplay. It is a minor trope, but satisfying in its context. It is somewhat surprising it wasn't repeated in other puzzles. (It also acts as a clue to the end. The pre-trigger for the final gameplay is hidden amongst many false directions and miscues. The opening is the clue - to set up the final trigger, one must touch the cursor's birth bud once again.)

In Wave [G17G] the tumbling cursor is more problematic for the user. The puzzle opens with no visible reaction from mouse rolls or clicks. After a bit of thrashing around by the user, a wave washes over the card, tumbling the cursor to the bottom of the screen. The cursor then becomes responsive, and user agency is restored. It's a trick. The user behavior that seems to bring in the wave is completely superstitious. The wave (and the cursor control) is on timer. This experience is frustrating, but it is consistent with the general frustration and difficulty of Griffin's puzzles. It also mirrors the plot, Griffin's tale of near drowning and fortuitous rescue. A third tumbling cursor was discussed in the close reading of Griffin and the Sphinx [G9G]. The cursor tumble was initiated by the Queen's breath, and could be connected to feelings of Sabine's power over Griffin.



The Wave [G17G]

G9G also brings up another cursor remediation - the swat. The cursor gets swatted when it approaches the propeller. Like the tumble, the propeller spin and the swat is impelled by the Queen's breath. Other swats include the cursor flying away upon approaching a spinning apple ("Frankie and Johnny" [F14G]), or a spinning top (Top [S7S]), and an emphatic flick when it clicks on the Samurai Cat's tale [G12S]. The swats, like the tumbles, involve a loss of user control, and serve as dramatic punctuations. The swat, however, is much more emphatic, for two reasons. First, the quality of the move is stronger. The swats are more violent than the relatively gentle tumbles. Second, and more central to the poetics of interaction, the swats always occur during the midst of gameplay. They are a direct reaction to user volition, and their effect is to remove that volition, at least temporarily. Once recovered the user is left to continue the quest. The user seeks salvation in the puzzle's trigger, but, like Griffin, is no longer as confident in the normality of the world and its interface.

More troubling for the user is the mis-mapped cursor. In a few of the puzzles, the normal directional conventions of the mouse roll are perverted from convention. In Dark Angel [S1S] the cursor-angel moves laterally with the mouse roll as we would expect. However an up roll pivots the cursor-angel to face right, and a left roll pivots it to face left. Since the navigation is so limited and straightforward in this puzzle, the effect of this variation from convention is relatively mild. However, the Cemetery [G18S] puzzle demonstrates that, in another context, a similar remediation can be devastating to the user, replicating the struggles of the protagonists to master their worlds.

Perhaps the most difficult of all the modifications of cursor play is the complete removal of both cursor and agency. This device is used in the two Frolatti cards ([S9F] and [S12F]). Both cards

trigger solely as a function of time. As in the initial portion of the Wave puzzle, any user behavior that occurs is without effect and any delusion that it is functional is a user superstition. The effect of this convention of negation is troubling. The experience is bound to be frustrating. The card advances, but the user doesn't know why. It is an unsatisfying and uneasy experience, consistent with the effect of Frolatti on the protagonists.

The last diminution of cursor agency is not as complete as the Frolatti examples. In Baby Beast [S20GS], the cursor has no effect on the timing of the puzzle, but it does allow the user to modify the visuals. The movie shows a fireworks display, which is visually changed as the cursor rolls, but still takes its own predetermined time (long) to finish. The agency of the user is non-functional and limited to the cosmetics of the experience. Most of the time is used to play a long African hymnal - setting up feelings of an exotic and somewhat melancholy celebration or transcendence. The effect is mixed. The music is hypnotic, but you still feel the frustration of your inability to definitively solve the puzzle. The refusal of solution to the final puzzle reflects the larger refusal of a definitive choice among the multiple interpretations of the story's ending.

Transformation: a special relationship between theme and game play

Transformation is a special case in the reading and analysis of *Ceremony of Innocence*. Transformation is at the same time a central theme of the story, and a critical characteristic of the digital state and interactive design. The computer environment is conducive to change and variability, and can give the user many options to use interface to change the details and the nature of the experience.⁵⁰

Transformation and interaction

Janet Murray cites transformation as one of her three major pleasures of digital environments (along with agency and immersion).⁵¹ Murray cites two variations on transformation: the interactor's⁵² transformation of the experience, and the experience's transformative effect on the interactor. Both concepts are relevant to the gameplay in *Ceremony of Innocence*, although in each case there are boundaries to their relevancy.

The interactor's "transformation" of the *Ceremony of Innocence* experience is more apparent than real. The interactive structure of the work is not changed by the interactor, rather it is discovered and revealed. However, from the interactor's perspective, things do change as a result of her interventions. It is true that once one performs repeated iterations of a given puzzle that it becomes clear that the "transformations" are in fact navigations through pre-determined channels. Nonetheless, in the moment of initial play, the pre-trigger and trigger actions of the interactor seem to initiate transformative reactions. For example, in the Griffin and the Sphinx

⁵⁰ Lev Manovich cites variability as one of the central principles of New Media. Lev Manovich, *Language of New Media*. 36-45;

⁵¹ Janet Murray; *Hamlet on the Holodeck*

⁵² "Interactor" is Murray's preferred term for the user or player.

puzzle, the final animation of the dirigible and the subsequent spinning of the card will be perceived in the moment as a transformative effect on the digital environment.

The experience's transformative effect on the user is more difficult to trace, but potentially more powerful. Murray discusses the ability of the computer to instantiate narrative concerns in the process of interaction: "Because the computer is a procedural medium, it does not just describe or observe behavioral patterns...it embodies and executes them."⁵³ In the Griffin and the Sphinx puzzle, the interaction of the user is designed to reflect narrative concerns. The user feels an inability to reach the Queen on the stamp - "embodying" Griffin's inability to connect with Sabine. Similarly, the loss of cursor control during the tumble is a momentary disjuncture with our normal experience of the world - reflecting and anticipating some of Griffin's own confusing experiences.

Transformation and gameplay

We can see examples of transformation in all phases of the gameplay design. The start of each puzzle is a setup. Part of each setup is graphic and static - the face of the card or the letter forms the field of puzzle play that is presented to the viewer. However, the setup phase also includes a more interactive component - the set of predictable user actions that will very likely be tried early in the gameplay. An example of predictable setup actions in which includes transformation can be found immediately after the initial movie in Self Portrait [F17S]. A flock of birds cycles between normal flocking behavior, and an outline of a woman's face (presumably Sabine's). This cyclical transformation continues under the initial user interaction (rolling the mouse). When the user inevitably clicks on the card - any click at all - a shot is heard, and the birds disperse. When they return, they continue to flock, but her face never reappears.

⁵³ Janet Murray, *Hamlet on the Holodeck*; 181;



Self Portrait [F17S]

The effect is subtle. On one level, it answers Griffin's request for a photograph of Sabine.⁵⁴ On another, it reinforces the connection of Sabine with mystery and with the constellation concepts of birds, flight and freedom. The user intervention (the click becoming a shot) has a further narrative effect. Sabine's face, although beautiful, has become identified with the marauding birds that must be scared away in order to protect one's territory. The shot is fired, and the Sabine/flock scatters. It is as if the user, as Griffin, has defended his space against this beautiful and mysterious intruder. The card spins, and the next reading can start.

In other cards, the transformations occur in mid-game play. In Samurai Cat [G12S], a click on the armoured cat yields the emergence of Minnaloushe. This is not at the beginning or the end of the puzzle; it is a mid-play pre-trigger event. This transformation also has a narrative impact. Griffin and Minnaloushe are connected, and Minnaloushe's change reflects Griffin's new willingness to engage with the world. Sabine agrees, remarking in the [G12S] letter that she thinks Griffin "is in the process of growing up now".

In the final phase of the puzzle play a trigger event leads to a payoff. The payoff is one of the two rewards the interactor receives when she solves any of the puzzles.⁵⁵ The payoffs in *Ceremony* are compelling, with a great deal of craft (graphic, aural, and filmic), wit and humor.

⁵⁴ In this regard, the flock/face is somewhat problematic when compared to the equivalent image in the book [GS17S]. The book has a painting of a beautiful and exotic Sabine. The game substitutes the animated picture of the flock/face. The game's birds may have been painted by Sabine, but they lack the impact, beauty and mystery of the book's self-portrait.

⁵⁵ The other reward is the advance of the story: hearing the next card or letter.

These mini-cut sequences also have connections to the major themes of the story. Many of the payoffs include transformations, often involving images of love or death (or both). A seashell turns into a plant. However, it is a disquieting plant, whose prehensile branches grip and turn with an unnatural life (Shells [F11S]). One banana becomes a moon in a truly romantic panorama (“Kangaroo With a Red Hat” [F4G]); another becomes a gun and shoots his (her?) true love (“Frankie and Johnny” [F14G]). A bullet rips into a man’s head, yet the exit wound spews a rainbow and music (“A Passing Shot” [G3G]).



“Frankie and Johnny” [F14G]

Perhaps the most beautiful and the most troubling of these payoff transformations is Dark Angel [S1S]. In this work the payoff is the dark angel losing her flesh and her wings. She is transformed into a skeleton: salvation becoming death. This transformation (and the resultant equation) is particularly troubling given the state of the plot at this point. Griffin has completed his journey. He has overcome his fear of Sabine, and once more sees her as lover and savior, not threat. In [G17G] her connection saves him from drowning. Yet she responds with a card from a cemetery [G18S], where she has been “communing with my sisters”. Undeterred, he resolves to return to her, knowing “what we will be to one another” [G19G]. He is wrong. Her reply is the Dark Angel card [S1S]⁵⁶, confirming that they cannot meet, at least not in the way that he had anticipated. His fate has been delayed. It may be for the good; the transformation suggests a

⁵⁶ This is another variance between the book and the game. In the books, this card is the last one of the second book ([SN20S] in *Sabine’s Notebook*). In the game it is the first card [S1S] of the third section (*The Sphinx*). Some of the effect of this change is minimized due to the media specific characteristics of the two forms. In the game the third section follows continuously from the end of the second. There is a break for a reading from *The Second Coming*, but the book has a similar break between [SN19G] and [SN20S].

connection between Sabine and death. This connection strengthens the impact of her cemetery reference, the fact that the angel-skeleton appears on her card, and her ongoing connection with winged figures.⁵⁷

These visual transformations in the setups, gameplay, and payoffs reinforce character development and support the general themes of the story (in these examples: transformation, gender, death/love, and isolation/connection).

Transformations of the cursor

There is one thematic/interactive connection in the work that is particularly compelling. That is the connection between the narrative theme of transformation and a particular gameplay transformation: the remediated cursor. Transformation is a major theme of the work. Whatever the interpretation of the story, both lovers are transformed. Griffin's transformation may be more complete, but Sabine is also changed. She merges with Griffin, either as a partner or a ruler. Either way, she takes on some of his aspects and traits. This ties transformation into the themes of gender, love, and death. Furthermore, the various transformations, half transformations, and cyclical transformations are related to the concept of duality.

One of the major gameplay variables in *Ceremony* is the treatment of the cursor. Our previous analysis has already uncovered relationships between the remediation of the cursor and narrative development. This connection is not coincidental. The cursor is a powerful nexus. As the representation of the user in the game world, it is the vehicle for her volition and agency. This goes beyond the world of gaming - it is a fundamental tenet of the basic graphical user interface.⁵⁸ The cursor is transformed significantly in *Ceremony*. Some of these transformations are iconic; some go directly to the functional essence of the interface. All of them reinforce the development of the narrative.

Iconic transformation of the cursor

The shape or form of the cursor is altered in many of the puzzles. This is a powerful visual decision. The user's attention is focused on the cursor, and therefore on whatever visual form the creators decide to give it. In a narrative work this is an opportunity to support character, mood, and story. In *The Lizard* [F3S], the cursor is seen as a butterfly who catalyzes change in her partner. In [F18G] the cursor is Pierrot, a comic little figure who strives and then self-destructs. These graphic transformations are visually interesting, but more significantly, they also comment on the narrative. For example, the butterfly can be seen as a representation of Sabine, and Pierrot as a representation of Griffin. These connections represent an expressive use of the cursor's graphic quality. As such they are analogous to the use of the magnifying glass

⁵⁷ See discussion below, "Iconic Transformation of the Cursor".





⁵⁸ "...by directly manipulating objects and data visually [GUI] users are given a sense of direct engagement and of control, both of which facilitate understanding of the nature of tasks." Geoff Leach, Ghassan Al-Qaimari, Mark Grieve, Noel Jinks, Cameron McKay, *Elements of a Three-dimensional Graphical User Interface*, <<http://goanna.cs.rmit.edu.au/~gl/research/HCC/interact97.html>>

cursor to enlarge selections of text, or the paint-can cursor to pour color into closed shapes. They communicate meaning to the user. *Ceremony's* iconic choices for the look of the cursor are extensions of standard cursor visual functionality (identification of task) into a narrative context (identification with character).






In order to follow the effect of iconic transformation on character development, it is useful to take a systematic look for trends in these graphic choices.

The connection of icon with character can be examined in many of the cards. Each card and letter (except for the Frolatti pair in the third section) is from either Griffin or Sabine. Sixteen of the associated puzzles have visually transformed the cursor icon. The table below compares the iconographic cursor transformation of the two protagonists in various categories.

Things

Griffin's Cards	[S4G] - "The Morning Star"		cursor is the match
	[S6G] - Landscape		cursor is plane
	[S8G] - "...Bananas"		cursor is plane
	[S19G] - the Gordian mirror		cursor is line that burns rope
Sabine's Cards	[G16S] - The Painted Lady		cursor is an (ethereal) paintbrush

Animals

Sabine's Cards	[F1S] - The Parrot		cursor is the parrot
	[F3S] - The lizard		cursor is the butterfly
	[S5S] - Postmarks		cursor is the stamp bug
Griffin's Cards	[F12G] - Animal Head		cursor becomes the head of small mammal
	[G15G] - "Sun King..."		cursor is a small tiger

People

Griffin's Cards	[F6G] - "The Alchemist"		cursor is the alchemists eyes
	[F18G] - "Pierrot's Last Stand"		cursor is Pierrot - a comic figure
	[S13G] - "The Wheel of Fortune"		cursor becomes a woman turning a wheel

Humanoids



Sabine's Cards	[F13S] - Mandala		cursor is a familiar ⁵⁹
	[F19S] - "...the Ceremony of Innocence"		cursor is the dark angel
	[S1S] - The Dark Angel		cursor starts as the dark angel, becomes a skeleton

Table 3: Iconic Representations of Transformed Cursors

⁵⁹ "Familiar" is Nick Bantock's terminology. He saw these kinds of figures as petroglyph type creatures that "became Sabine's familiars". [Nick Bantock; *The Artful Dodger*; 66.]

There are definite trends in these visual choices. Griffin's iconography tends to be more prosaic than Sabine's: mammals, things, people. Sabine's are less grounded, more other-worldly: birds, bugs, angels, familiars, a non-existent paintbrush. There is a connection with flying in both sets of cursor icons. Griffin has two planes on his cards. Sabine's connection, however, is slightly stronger. She has two angels, a bird, a butterfly, and two icons that may fly (the stamp bug and the familiar). In addition, her ability to fly is either an organic ability or an ethereal one. Griffin's two flight icons are mechanical - and one of them crashes! There is a connection with death and sadness in seven of these transformed cursors (two dark angels, a burning man, a burning match, a plane crash, a bad fall, a trapped woman). Five of these seven cursors are on Griffin's cards.

These sixteen puzzles do provide a differentiation of character between Griffin and Sabine. The visuals of Griffin's cursors project two connections. The first is to the ordinary, the mechanical, the limited. The other connection is to sadness and death. Sabine's visual speak of an ethereal quality, of flight, of an exotic attraction. She too is connected to death, but her connection is not sad, it is triumphant and beautiful. These representations do not define the characterizations of the protagonists, but they do reflect and support them.

The iconographic choices for these transformed cursors are significant aesthetic choices in the context of the translation from book to game. The graphics from *Griffin and Sabine* were translated into *Ceremony of Innocence* fairly completely. There are very few examples where the decision was made to change an image. However, each of these sixteen choices required consideration and decision, because of the process of translation. The cursor icon mediates the critical part of the gameplay experience (see interface discussion below). To transform a cursor icon into a graphic image is to give that image a great deal of weight. In the new medium, this is a highly significant expressive decision. This translation decision amplifies any narrative outcomes associated with the choice of iconography.

Cursor function and narrative implications

Many of the cursor transformations go further than simple graphic changes. The iconic transformations are important and meaningful, but another form of cursor modification is even more significant. Some of *Ceremony's* puzzles transform the operational characteristics of the cursor, and an analysis of these craft choices informs a central issue for this paper: the relationship between interactivity and narrative. The role of the cursor is fundamental to the experience of the interface. If narrative is situated at this point, it has penetrated to the heart of the interactive process.

The cursor is not an invariant phenomenon. In ordinary usage the cursor often transforms. Depending on the software and the desired function of the moment, the cursor's manifestations include arrow, I-bar, magnifying glass, paintbrush, and a host of others. The key here is user choice. At any given point, she changes the form of the cursor in accordance with her selection of operational modes. The cursor's functionality is under the control of the user. Similarly, and more ubiquitously, the cursor's motion, position, and action are under the control of the user.

The user decides where the cursor goes, and what the cursor does. This is a (perhaps the) fundamental operating tenet of the dominant interface paradigm of personal computing: the Xerox/Dynabook/Macintosh/Windows interface.⁶⁰ The user assumes the direct and perfect connection between moving the hand (mouse) and seeing the cursor move on the screen. The mapping and its conventions must be learned, but it is very consistent. Constant repetitions have moved this learned behavior from the conscious to the autonomic. We no longer think about the relationship between moving our hand/mouse to the right and seeing the cursor move with it - replicating the hand/mouse move on a perfectly responsive electronic tether. This relationship has been constantly reinforced.⁶¹ We are so accustomed to this correlation that it is perfectly transparent - we don't think about it, we don't question it, we don't even notice it.

In Janet Murray's terminology our agency⁶² in this regard is complete and absolute. In Bolter and Grusin's scheme we experience a complete immediacy⁶³. The hand moves the mouse, and the cursor automatically follows. We are unaware of any intervening mediation. The thought is the hand, the hand is the mouse, the mouse is the cursor. In this limited but critical modality, agency and immediacy are both transparent and complete. (Unless of course, the mouse ball is dirty, in which case we are maddened by the loss of agency and control that a "sticky" mouse entails. At this point we are uncomfortably aware of the hypermediated⁶⁴ and flawed relationship of the hand, the mouse, and an errant cursor.)

Transformed cursor functionality in *Ceremony of Innocence*

This "normal" interactive world is distorted in parts of *Ceremony of Innocence*. The transparent hand-mouse-cursor relationship is manipulated and perverted in various ways. In the "Story, gameplay, and the role of the cursor" section above a number of functional cursor manipulations are described: the tumbling cursor, the swat, the mis-mapped cursor, and the missing cursor. The transformation of cursor functionality is a powerful gaming device that also can be used for narrative effect. A review of the set of sixteen iconically transformed cursors reveals an extensive use of this device. Further analysis shows the narrative impact of these functional transformations.

There are sixteen puzzles with iconically transformed cursors. (See table below.) Four of them have cursor-figures that are completely free to range the screen. Of the twelve puzzles with compromised cursor freedom:

- one begins with the cursor restricted, but then becoming relatively free in the course of the game play

⁶⁰ Preece, Rogers, Sharp, Benyon, Holland, Carey; *Human-Computer Interaction*; (Addison-Wesley; Harlow, England; 1994) 17-18

⁶¹ The reinforcement is not only constant, it is immediate. The latency between the response (moving the mouse) and the reinforcement (seeing the cursor move) is functionally zero. This constant and immediate reinforcement is a very powerful conditioning tool. The functional relationship between hand, mouse, cursor and eye is operantly reinforced each time we use the GUI.

⁶² Janet Murray; *Hamlet on the Holodeck*

⁶³ Jay Bolter and Richard Grusin; *Remediation*

⁶⁴ Jay Bolter and Richard Grusin; *Remediation*

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- two have the cursor starting free, but then becoming captured and restricted in its movement
- six have a cursor with some degree of spatial freedom, but also subject to some type of partial restriction (often confined to strictly lateral movement)
- three have their cursors severely restricted spatially - able to move an object within tight limits, but unable to move out of their confined position.

Cursor is Free	[F3S] – The lizard (Sabine card)	Cursor is the butterfly.	
	[F13S] – Mandala (Sabine)	Cursor is a familiar.	
	[G16S] – The Painted Lady (Sabine)	Cursor is an (ethereal) paintbrush.	
	[S5S] – Postmarks (Sabine)	Cursor is the stamp bug.	
Mixed –cursor starts restricted, becomes free	[S4G] – “The Morning Star” (Griffin Card)	Cursor is the matchbox, then the match	Cursor starts as the matchbox – can only go down. When matchbox is open, cursor becomes match. Cursor-match can range free, but can not go over the matchbox.
Mixed – cursor starts free – is captured	[F1S] – The Parrot (Sabine)	Cursor is free, then is eaten by the parrot. Cursor then becomes the parrot.	Parrot-cursor shuffles to screen left on its own. To solve puzzle you have to keep tracking right
	[S13G] – “The Wheel of Fortune” (Griffin)	Cursor is free, then on rollover becomes a woman turning a wheel.	Woman-cursor can only go in circle.
Cursor partially restricted	[F18G] – “Pierrot’s Last Stand” (Griffin)	Cursor is Pierrot – a comic figure.	Cursor-Pierrot only go forward in stages. Can’t retrace his steps.
	[G15G] – “Sun King...” (Griffin)	Cursor is a small tiger.	Cursor-tiger can only trace a raster pattern from bottom of screen to top.
	[S1S] – The Dark Angel (Sabine)	Cursor starts as the dark angel, becomes a skeleton.	Cursor-angel can only spin, and move laterally.
	[S6G] – Landscape (Griffin)	Cursor is plane.	Cursor-plane always moves laterally, alternating to screen left and screen right. Limited altitude control.
	[S8G] – “...Bananas” (Griffin)	Cursor is plane.	See S8G above.
	[S19G] – the Gordian mirror (Griffin)	Cursor is line that burns rope.	Cursor-line can only move laterally.
Cursor restricted	[F12G] –Animal Head (Griffin)	Cursor is the head of small mammal hidden inside human head.	Cursor is mammal inside head. Lateral rolls move head. Upward move frees mammal-cursor from top of skull.
	[F6G] – “The Alchemist” (Griffin)	Cursor is the alchemists eyes.	Mouse moves eyes in sockets. Holding cursor-eyes shut causes boy to fall.
	[F19S] – “...the Ceremony of Innocence” (Sabine)	Cursor is the dark angel.	Move mouse laterally and angel head turns. Move mouse up and angel spreads wings and flies.

Table 4: Functional transformations of the Iconically Transformed Cursors

The chart shows the relationship between these functional transformations of the cursor and a narrative concern – the characters of the protagonists. Sabine has seven cards, Griffin has nine. The four free cursors are all found on Sabine's cards. None of Griffin's cards has a completely free cursor. There are twelve cards with some degree of restriction in the cursor action. Nine of these are Griffin's and only three are Sabine's.⁶⁵

This is a consistent pattern. Freedom of movement tends to be associated with Sabine's cards. Griffin's cards have significantly more restrictions on cursor movement.⁶⁶ This has implications on two levels. First, there seems to be a counterpoint to actual motion in the plot. Griffin travels much more than Sabine. However, the thematic connection between a restricted cursor and Griffin's character is intuitively sound. Griffin is a much more constrained and tight personality than Sabine. She seems freer, more in touch with her feelings, readier to follow them. Griffin's character struggles with these issues throughout the story. It is hard for him to allow his feelings to range free.

The most significant implication is the effect of Griffin's restricted cursors on user experience. We expect the transparent agency and immediacy of a free cursor. Denial of this expectation is surprising, difficult, and frustrating. A level of difficulty is consistent with a puzzle game, of course, but this particular difficulty will tend to make Griffin's puzzles more frustrating. We feel trapped – strongly, intuitively, and maddeningly trapped. This direct experience mirrors Griffin himself. We can associate his cards with visceral feelings of restriction and limitation.

These effects seem to be the results of purposeful aesthetic choices. If this is true, the creators have consciously manipulated the core craft of the interactive experience: the design of the interface itself. Even if the design choices were intuitive rather than purposeful, they have nonetheless enhanced the puzzle play of the CD-ROM. More significantly for our analysis, the manipulations also have direct narrative outcomes: the further explication of character and the reinforcement of protagonist perspective. Conscious or intuitive, these interface decisions begin to define a poetics of interactive narrative.

⁶⁵ The mixed cursors are found on two of Griffin's cards and only one of Sabine's. The cursors with modified freedom to move are found on five of Griffin's cards, and only one of Sabine's. The cursors with severely restricted movement are found on two of Griffin's cards and only one of Sabine's.

⁶⁶ This correlation (between the restricted cursors on Griffin's cards, and the relatively freer cursors on Sabine's cards) holds true for the rest of the CD-ROM, although the relationship is not as strong as it is within our set of sixteen iconically transformed cursor puzzles.

Expressivity and Craft

This exploration began with some questions: Is interactivity compatible with story? Can the interactive experience add to the narrative experience? The close readings have given us many examples and insights that we can use to answer these questions. The creators of *Ceremony of Innocence* use a variety of mediated and interactive devices to build a more robust narrative ambience. They also focus narrativity at the heart of the interactive experience – the dynamics of the relationship between the user and the cursor.

Expressionist Cinema, Expressive Cinema

The analysis of the close readings reveals expressive applications of the poetics of interactive narrative. There is an analogy to the use of craft in film. The Expressionist filmmakers used film craft in order to portray (and elicit) an emotional state. In the words of Kristin Thompson and David Bordwell: “Expressionism... reacted against realism and turned toward extreme distortion to express an inner emotional reality rather than surface appearances”.⁶⁷ The expressionists were noted for their use of set, but they also used lighting, costume, makeup, and props. The later filmmakers that worked in the expressionist tradition added music and sound effects to the list. All of these craft variables were used by the expressionists to show and to elicit emotion.

For the purposes of this argument I am extending the standard historical use of the term ‘Expressionist’ (e.g. the German Expressionist films). I am including those filmmakers, call them the ‘neo-expressionists’, who continue to exaggerate craft and style beyond the boundaries of realism or naturalism. In doing so, I am not making a closed extension to their direct successors – such as Film Noir or Sci-Fi post-apocalyptic thrillers. I don’t mean to confine my use of ‘neo-expressionist’ to the darker side of human emotion. Rather, I am using the term to refer to any exaggerated use of cinematic form to represent and amplify an emotional state, regardless of the tone of that state. In this sense, both *Batman* and *Superman* could be seen as expressionist films. The Batman’s cave and Superman’s retreat are quite different in emotional tone. One feels dark and somber and constrained, the other feels light and airy and free. However, in this context, both can be seen as equally expressionist – i.e., visually representing an emotional state or quality through the explicit and intense use of film craft (in these examples: set, costume, makeup, props, lighting, and sound). The key here is intensity. The expressionists and the neo-expressionists go beyond realism and naturalism. They self-consciously exaggerate craft beyond these boundaries. Bolter and Grusin’s concepts may help here. Expressionist and

⁶⁷ Kristin Thompson and David Bordwell; *Film History: an Introduction*, (New York: McGraw-Hill, Inc. 1994) 109
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(using my term again) neo-expressionist filmmakers exaggerate craft to the point of hypermediacy in order to express and elicit emotion.

This use of film craft to express emotion is a narrative function. These tools are used to support the emotional context within which the narrative plays out, and as such they resonate with character and story. Thompson and Bordwell describe the elevation of film's look into an active role as part of the narrative experience: "In expressionist films the expressivity associated with the human figure extends into every aspect of the mise-en-scene. During the 1920's descriptions of expressionist films often referred to the sets as 'acting' or as blending in with the actors' movements."⁶⁸ Further, this use of craft can be aesthetically ubiquitous. The heart of the narrative is embedded in cinema's core creative concerns: editing, directing, scripting, acting, shooting. However, any opportunity to use craft to support story can be utilized. The narrative sensibilities can be distributed throughout the work.

A further extension of this tendency is much broader, and leaves the confines of Expressionist exaggeration for a more moderated expressivity. The expressive distribution of narrative throughout a film's craft begins with the same recognition of cinema's multi-modal capability. Film contains many crafts: composition, editing, directing, acting, sound design, music, lighting, set design, costuming, makeup, etc. All can be used expressively, that is to build the aesthetic goals of the entire work. For narrative works, this means using all of film craft to resonate emotion, character and story themes. Unlike the expressionists, not all filmmakers exaggerate craft in order to reflect these narrative concerns. However, most accomplished filmmakers use craft in order to do so. A Hollywood starlet in a romantic scene is filmed with soft lighting and a nylon over the lens. The look enhances the mood, defines character and builds the story experience. A documentary videographer will shoot a university professor with her bookshelf in the background in order to help define character. Music is perhaps the most powerful single example. Whatever other purpose it plays in the film, music directly affects the emotional flavor of a scene. Music also affects pacing, and can help to define character and ambience.

This process describes the development of a narrative texture – an infusion of story throughout all facets of cinematic experience. Filmmakers can make use of the expressive qualities of film's crafts to support narrative goals. Emotion, character and story themes can be reflected throughout the subsidiary modalities of cinematic craft, distributing narrative across the work.

Expressive use of interactive craft

Designers of interactive narrative can also commit to the expressive use of all of the modalities of their medium. This includes the older media forms that are embedded within a multi-mediated digital environment: text, graphics, photographs, sound, moving images. It also

⁶⁸ Kristin Thompson and David Bordwell; 111

includes the expressive use of the modalities that are intrinsic to the digital environments: interface and interactivity. Interactive works can develop a narrative texture in the same way cinema does.

Interactive structure

An analysis of interactive design starts with structure. Eric Zimmerman argues that interactive works can be placed along a continuum between those with an embedded interactive structure, and those with an emergent interactive structure. He also labels embedded interactive structures as content-based: “A content-based structure consists of pregenerated ‘content’ that is navigated by the participant as she interacts with the system. ... The content is already embedded in the system before any interaction begins.”⁶⁹ He contrasts this with emergent or system-based structures: “System-based structures are sets of rules and procedures that result in unexpected experiences and content. ...it emerges as the participants follow the rules of the game.”⁷⁰

Zimmerman stresses that they do indeed form a continuum. Most interactive media experiences share in both characteristics, although often one or the other will dominate. Zimmerman cites *Myst* as a predominantly embedded interactive experience and *Sim City* as primarily emergent. The same distinctions and the same continuum apply to interactive narratives (in this case *The Sims* is a better example than *Sim City*).

Emergent narrative structures

One can differentiate still further within the realm of emergent narrative structures. There seem to be two types of emergent narratives. The first relies on the user combining and recombining narrative elements. For these works a basic structural framework will include a process for the mixing and re-mixing of these elements. One example of this use of recombinant narrative objects is *Berliner sehen*.⁷¹ *Berliner sehen* is an interactive language learning tool produced by Kurt Fendt and Ellen Crocker. It is based on a database of objects (interviews, movies, photographs, maps) that pertain to two neighborhoods in Berlin. Learners use these elements in a two-step process. First they sort the database using a visual search tool to find related objects. These objects are presented to the users as icons. Second, the learners order the icons to form a functional storyboard for a narrative experience. The learners use the interface to find and then to combine and recombine narrative elements. In the process they are building one iteration of a recombinant narrative experience.

A key question here is the granularity of the narrative. Some of these objects (e.g. – the interview movies) will have small but complete narrative arcs. They do take on broader narrative functionality when combined with other narrative objects in *Berliner*. However, they

⁶⁹ Eric Zimmerman; “Against Hypertext”, *American Letters and Commentary*; Issue #12. New York 2001

⁷⁰ Eric Zimmerman, “Against Hypertext”

⁷¹ Presented by Kurt Fendt, “Participatory Narrative Session”, *EA Creative Leaders Workshop3*, February 15, 2001, Las Vegas, NV. (Produced by Kurt Fendt & Ellen Crocker; Foreign Language and Literature Department; MIT; Cambridge, MA).

could also stand on their own as independent narrative objects with a version of a narrative arc. Others, however, are less developed narrative elements. It would be difficult for the photographs and the maps to be described as having an arc. However, they are well suited for combination and recombination with other objects to form a narrative arc.

The experience of *Berliner* reflects three distinct phases of expressive narrative choice. The first is narratively neutral in and of itself, but critically important to all other narrative development. The designers have constructed an environment where narrative can thrive. *Berliner* is a rich multimediated database with an elegant interface. It has simple and effective rules for building and rebuilding narrative. The second expressive moment is the selection by the designers of specific narrative elements with the appropriate emotional connotations (e.g. – the interviews). The designers have loaded the database objects with the narrative elements through which the user will build story: character, location, mood, emotion, and component stories. The third expressive phase is the emergent moment itself. The stories don't happen until the user selects, trims, orders and re-orders the narrative elements. *Berliner sehen* is a good example of how narrative components can be combined and recombined to form more complicated narratives.

The Sims illustrates another type of emergent narrative – an algorithmic emergence. The user's volition doesn't determine the order of the narrative in the same way it does in *Berliner*. In *The Sims* the user makes initial choices about the characters (see below) but the narrative emerges out of the algorithms of the program. The user does intervene at many points, but the intervention takes the form of an ongoing dance with the moving stream of the game's emerging narrative.

Embedded Narrative Structures

Embedded narrative can be described as more content-based than process-based: "A content-based structure consists of pre-generated 'content' that is navigated by the participant as she interacts with the system."⁷² The game paths and the game's narrative objects are presented according to a range of predetermined sequences. They are not generated dynamically and fluidly through the process of the game play.

One might make the argument that *prima facie* an embedded story structure is less interactively expressive than an emergent one. In Zimmerman's words: "It is open-ended, emergent texts that constitute the great unexplored terrain of computer interactivity."⁷³ It is not a simple issue to address. For one thing, most games partake of both characteristics, even if one predominates. Emergent narrative is theoretically a more expressive mode because it leaves greater scope for the interactive process, for the active ability of the user to transform the experience. This is a theoretical gain in expressivity, but the real test of any work is its functional expressivity. How well does it work on its own terms? We would not argue, for example, that a Mondrian was less expressive than a Pollock simply because the expressive freedom of the former was consciously constrained along certain parameters. Rather we look at the work as a whole, and judge its expressivity more globally.

⁷² Eric Zimmerman, "Against Hypertext"

⁷³ Eric Zimmerman, "Against Hypertext"

The key point for this argument may be the user experience of the design, not the design itself. A user navigation through a pre-determined narrative may feel like an emergent interactive experience. This illusion of complete agency will suffice, at least for the initial iteration. In *Ceremony of Innocence* the user knows she is solving puzzles, but she doesn't know that for most games, there is only one trigger. She experiences a more immersive struggle of agency and intuition against challenge and frustration. The embedded structure has yielded the illusion of emergence. This point is important, because many videogames lean towards the embedded end of the continuum. An archetype is *Myst*. In *Myst* the user navigates through a series of puzzles embedded within (and enabling access to) a beautiful landscape. The puzzle rewards are either more freedom to roam, or bits of narrative information. The immediate solution paths (triggers) are pre-determined – although within definite limits the broader order can be varied by the user. There is no dynamic mutually interactive exchange with any characters, or with the world of the game. Other games are basically embedded, but have more emergence than *Myst*. *Black and White* is an example. The overall structure of *Black and White*, and the master narrative that it describes, and the subsidiary quests within that master narrative are all pre-determined. However, within this embedded structure there are vehicles for building emergent narrative elements: character, mood, emotion.

Ceremony of Innocence leans heavily towards the embedded side of the continuum. The path through the game is not only predetermined, it is a single path. One must solve a puzzle, then hear the next lexia. Then solve the next puzzle, hear the next lexia. This is the simplest of all embedded narrative structures: a straight line with puzzles interspersed like beads on string. Chris Crawford criticizes this structure severely, labeling it “obstructionist”, and denying it is interactive.⁷⁴ He calls it a “Skinner box” interactivity that reduces the user to a “rat in a maze” (although a “tunnel” would be a better metaphor in his critique). However, any generalized theoretical dismissal of an interactive structure has far less weight than the actual effectiveness of the structure within the work itself. *Ceremony's* heavily embedded and constricted interactive narrative construction serves very well in certain ways. It may not be fully expressive in terms of its interactive structure, but that structure is a vehicle for a strong narrative arc. The development of plot, character and mood is maintained.⁷⁵ At the same time, the tight adaptation maintains the expressivity of the graphic world of *Griffin and Sabine*. These graphics are not direct explications of story, but they do resonate with theme, mood, and character.

⁷⁴ Chris Crawford, *Understanding Interactivity*, 59

⁷⁵ In this regard, it is also interesting to note that the lockstep nature of the experience actually only holds at the moment of narrative emergence. You cannot skip a puzzle that you have not solved, nor avoid a text you have not read. Using the menu function, the user can navigate freely among all the puzzles she has solved, and therefore all the lexia she has already seen.

Elements of Interactive Narrative

The details of interactive narrative design are just as important as the broader structural issues. Both embedded and emergent narrative structures share certain common elements. *Erasmatron*⁷⁶ by Chris Crawford is an ambitious narrative authoring engine that identifies some of these elements: characters, worlds,⁷⁷ and actions. Using these components, the author embeds emotional flavor and narrative choice within an interactive story. Crawford's elements are a good start for the examination of how narrative texture can be built into all the levels of an interactive work.

Character

Character is a key avenue for the expressive use of interactive narrative development. There are various examples of the construction of character in interactive works. The popular game *Creatures* involves users in the raising of humanoid creatures. The user's job is to keep the creature physically and mentally happy and growing. *Petz* and *Tamagotchi* involve a similar philosophy. In all of these, an expressive exercise in interactive design has put emotion and character at the center of the experience. The nurturing and the parenting of the character is the goal of these games. It is interesting that part of the social culture of *Creature* users is the trading and selling of creatures via the web. The virtual character as an elemental component has acquired an economic as well as a narrative validation.

A more recent example of the role of semi-autonomous character construction in gaming is *Black and White*. This god-game by Peter Molyneux invests the user with supreme power over an entire world. The user can treat the inhabitants of the world with kindness or with cruelty. The user becomes god or a Satan. The expressive use of interactive design is manifest in the character of the helper ("the helper-creature") that supports the user's god-like activities. The helper modifies its personality based on the actions of the user-god towards the helper itself and towards the world's other inhabitants. The helper will become an angel or devil, as determined by the user's actions. This investment of the helper with attributes and personality is one of the defining characteristics of the game. "The range of behaviors and the seeming randomness of it all means your [Helper-Creature] might do anything at any moment. In short, it's a piece of code that truly acts like a living thing."⁷⁸ The living helper can sense the emotional qualities of the user's actions, and reflect those qualities in its own behavior.

The most famous of the character construction experiences is *The Sims*. The raison d'être for this game is character. One of the most important aspects of the character construction process is the definition of personality. The user is presented the following choices for their character: neat, outgoing, active, playful, and nice. For each of these five parameters the user picks a high

⁷⁶ Information about Crawford's software, *Erasmatron* can be found at <http://www.erasmatazz.com/free.html>

⁷⁷ Crawford actually uses the terms "location" and "objects". For the purpose of this analysis I have conflated them into the single term "world" which encompasses both terms.

⁷⁸ Ben Silverman; *PC Magazine*; <http://www.game-revolution.com/games/pc/strategy/black_and_white.htm>

or a low rating. The menu is limited, but the permutations are endlessly fascinating. This is an expressive use of interactive design. The fun in the game lies in watching how the personalities of the characters interact with each other.

These interactive characters share another common characteristic. There is a dynamic link to their actions – the details are not completely predetermined, but are in part emergent. Some of this emergent action grows out of explicitly determined user choices: the personality selection in *The Sims*, or the training moments in *Creatures* and *Black and White*. Other action grows out of the implicit choices the user makes: the helper in *Black and White* also learns by observing how the user interacts with the villages. This learning is independent of the users direct actions with the helper. Finally, some of the emergent action can be algorithmically influenced. In *The Sims*, the action outcomes are modified by the interactions with other characters, by the current “biological state” of the character, and by the qualities of the objects she is interacting with. These emergent qualities are part of an expressive interactive design.

Ceremony of Innocence takes a different path. The primary development of character does not derive from an application of interactive expressivity. The formulation of character in *Ceremony* in many ways resembles its formulation of overall interactive narrative structure. Like the story’s pre-determined dramatic arc, the characters are taken from the linear parent story (*Griffin and Sabine*), and are largely fixed.

Several considerations complicate this conclusion. The characters are reflected and amplified through the subsidiary craft of the game. The graphics and textual forms (font and calligraphy) reflect the characters, their concerns, and their emotions. These modalities are derived from the books, but both are remediated in the context of the game. The graphics become animated, as do certain portions of the text. New moving pictures are added, as are sound effects and music. All of these support character development. Finally the performances themselves increase the impact of the written words. Isabella Rossellini’s seductive warmth, Paul McGann’s vulnerability and petulance, Ben Kingsley’s oily Frolatti and dark Yeats add an immediacy to the formal text. They do this at the cost of the user’s imaginative freedom, but they add to the instantiation of character and mood.

All of these are expressive decisions, all build character, all add to the narrative texture of the piece, but they do not do so through the interactive mode. The choice to switch away from a medium’s primary mode is consistent with the spirit of the books. The *Griffin and Sabine* trilogy restricts and channels its perspectives on character. A novel can build character in a variety of ways: dialogue, introspection, description of action, observations by other characters, authorial observation.⁷⁹ However, the epistolary work is a limited form of the novel – it tends to privilege variations on dialogue and shared introspections. *Griffin and Sabine* also limits the forms of

⁷⁹ Bakhtin uses a similar list: “Authorial speech, the speeches of narrators, inserted genres, the speech of characters are merely those fundamental compositional unities with whose help heteroglossia...can enter the novel.” Mikhail Bakhtin; *The Dialogic Imagination*. 263

characterization with respect to its other parent genre, the pop-up book. Despite the rich graphic world that the trilogy builds, we never see the protagonists.⁸⁰

A final complication partially refutes the conclusion that character development in *Ceremony* is not enhanced through expressive interactive design. The conclusion is true enough if it is confined to the direct development of character. However, consideration of the indirect development of character leads to a different conclusion. *Ceremony* includes many transformations of the cursor's functionality. These modifications, restrictions and perversions of user interface conventions all help to build character, and as such are expressive examples of interactive narrative design.

World Design

Another modality for the expressive construction of narrative texture is the design of the world and its objects. *Erasmatron* incorporates the design of both locations and objects into its storytelling engine. *The Sims* also allows users to design the houses, and to select which objects their Sims can purchase. The challenge for the user is build space and buy objects that resonate with the personalities of their Sims. An outgoing Sim will be happy with a party room, a couch and a stereo. An introspective Sim will thrive with books and a comfortable chair. Any number of fighting games or quest games incorporate objects (weapons, potions, clothes) that express the personality of the character and reflect the narrative themes of the game.

Black and White is an example of an expressive world design that reflects narrative choice. The creature can be trained and modified by the user's actions. In addition, the emotional climate of the world is fundamentally determined by the user's choices. The nature of the villages, the state of the fields, the health of the environment, and the attitude of the villagers flow from the accumulated history of the user's interventions. A benevolent user can gradually turn the world into more and more of a paradise, the care of the user reflected in the adoration of the villagers. A cruel user will turn the world into a much harsher place, ruled by fear and terror. In this regard, the authors made a critical high-level design choice. Neither option (love or terror) is privileged with respect to winning the game. The user can be Satan or a benevolent God. The world will reflect these choices, but either can be a successful strategy. The designers purposely left this critical expressive decision in the hands of the user.

At first glance, the world of *Ceremony of Innocence* would probably not be seen as a particularly expressive construction of a digital space. It lacks the geographic specificity of *The Sims*, the three dimensionality and broad sweep of *Black and White*, the emergent functionality of *Berliner sehen*. *Ceremony's* world is made up of a series of flat spaces (taken from the books) representing the card faces, the card's texts, and the letters. These two dimensional spaces are generally disjunctive – there is a minor break between the front and the back of each card, and a major break from one card to the next.

⁸⁰ The one exception is Sabine's self-portrait [GS18S], whose veracity she undercuts by adding that she reserves the right to self-flatter, because artists "record ourselves the way we wish"

The expressivity of the parent work combines with the added expressivity of the subordinate media to prevent a disappointing result. The cards and letter spaces form an integral part of the story. They frame the development of the narrative. They are a tangible reminder of the epistolary nature of this work. The disjunctures between the lexia punctuate the temporality of the piece, building an inevitability into the rhythm of the relationship. Griffin cannot escape Sabine, because her next card cannot be avoided. The disjunctive framing is also consistent with the psychological dimensions of the epistolary form – the story space consists of two separate minds. This definition of the theatre of action privileges a core question of this particular work. The relationship of those two mental spaces is the key to the interpretation of the story.

The cards and the letters literally frame the presentation of the story's objects. The graphics carry a subordinate but very significant narrative load, reflecting theme, mood and character. The latter is particularly powerful – both of the protagonists are graphic artists. When we see a frame that contains their graphics, we are experiencing the artists' self-definition. The other media objects: the movies, the animations, the text that initiates the voice performance; all are carried within the windows of the cards and letters. In the same way, the frames contain the gameplay itself. This is a showcasing function - the frame is the field upon which the interactivity plays out. This showcasing, this bounding is known as the "magic circle" of gaming. Eric Zimmerman argues that this boundary is essential to the experience of the game state: "You're either playing [the] game, or you're not".⁸¹

More specific to the interactive poetics of *Ceremony* is the fact that the turning of the puzzle frame is always the final reward for a successful solution. The frame bounds the game temporally as well as visually, and punctuates the moment of victory. This form of reward has another function that is directly related to the spatiality of this world. The spin from the puzzle face to the text face sutures the disjuncture. This cinematic move joins the two sides of the card. The suturing is aided in some cases by other cinematic devices. We saw the blimp leave the puzzle, spin the letter and then open the envelope in Griffin and the Sphinx [G9G]. In other cases the suture is applied through an extension of an interactive device. In the Falcon [G10S], we saw both cinematic and interactive junctures. Minnaloushe strolls through the puzzle and the text side of the card. On the face card we can reward the strolling Minnaloushe by spilling the milk.

A final word

Gabe Newell describes how his team crafted the world's walls in the award-winning game *Half-Life*. "But this notion that the world is reacting to me was an incredibly powerful one. If I shot at the wall in games before *Half-Life* there were no bullet holes that appeared on the wall. The wall was ignoring me. Every time that you made the world react to player behavior or extend player behavior, we used that as our operational definition of game playing."⁸²

⁸¹ Eric Zimmerman; *Artists Space Newsletter*; Fall 1999; <<http://www.ericzimmerman.com/acastuff/asinterview.html>>

⁸² Gabe Newell; MIT Games Conference; Games as Interactive Storytelling Panel; Feb. 11, 2000; Cambridge, MA

This example is more telling than Newell thinks. He describes it as an advance in realism. He is right, it is, and as such it is an advance in gaming design. A world that reacts in this way affirms the existence and the agency of the user. However, the more interesting consideration is not that it is more realistic than previous world designs. The real advance is that this is an expressive interactive decision that resonates with the mood and theme of this particular interactive narrative. The walls react to bullets, which is completely appropriate and significant in a game in which violence is a theme. This does increase agency, but it is a purposeful and expressive extension of agency. It is not merely a neutral recreation of reality. It is designed to specifically reflect and amplify the themes of the game's story framework. In this sense it is performing the same function as the graphics in *Griffin and Sabine*, or the transformed cursor in *Ceremony of Innocence*.

Newell's story highlights the key point in the development of the craft of interactive narrative. The reason to develop a medium's poetic capabilities is not to make everything more real. The true reason is to make the medium more expressive. There is no single path to this goal of expressivity. The effective method is to take any and every path that moves the work towards its narrative goals. Story, theme, character and emotion should be supported using all the existing tools of the component media craft and the emergent tools of the interactive narrative craft.

The Micronarrative

Chris Crawford's Erasmatron project attempts to operationalize key components of interactive narrative. After character and world, the last set of variables are grouped under what Crawford calls "action". His action parameters allow the interactive designer to create a range of possible user actions and consequences for a given situation. In effect, this involves the creation of an array of small narrative arcs that share a common setup and complication, but have different development and resolution phases. These arcs form a group of alternative miniature narratives for a given point in the story process.

Henry Jenkins calls a related concept the "micronarrative". He posited this term at the Creative Leaders Workshop, a joint project between MIT's Comparative Media Studies program and the game company Electronic Arts.⁸³ Jenkins discussed a continuum that went from individual memorable moments,⁸⁴ through small micronarrative arcs, and finally culminated in the larger narrative arc of the complete work. As an example of micronarrative he used the component stories of the Odessa Steps sequence from *The Battleship Potemkin*.

Jenkins' hierarchy was in its initial formulation, not yet a mature system of concepts. It was not yet explicit as to what micronarrative is, nor how one could determine what defines a

⁸³ Henry Jenkins; *Creative Leaders Workshop 3*; Las Vegas, Nevada

⁸⁴ The concept of "memorable moments" originated with Electronic Arts. Their scripting templates call for designers to specify what they see as the most memorable moments in their current project.

micronarrative unit, nor what makes for a “memorable moment”. However, the concepts have great potential, and can help build a critical analysis of interactive narrative. New conceptual tools are needed to understand the expressive quality of digital narrative environments. These tools have to support the rigorous examination of the emergent interactive narrative. This will include the analysis of dynamic story spaces with fluid and shifting narrative elements. “Micronarrative” and “memorable moment” can point the way to an understanding of what these elements are, which in turn will support an understanding of how they can be combined and recombined. Eric Zimmerman puts forward a similar concept. He sees the use of flexible narrative components as integral to the expressive nature of the digital interactive media: “In my opinion, that is a kind of technology that is much more intrinsic to computing. The computer as something that is not a fancy VCR that allows you to play back cinematic pre-rendered sequences... but using the computer to combine and recombine small local elements.”⁸⁵

Peter Donaldson⁸⁶ has an historical perspective on memorable moments, finding many examples in the centuries of audience reception of Shakespeare. Some moments are remembered very strongly in the popular consciousness. They can be seen as free standing narrative units within the cultural Shakespearean meta-text. Donaldson argues that one way to build these memorable moments is through the fusion of text and performance. A great acting moment combines text with voice, pose, costume, etc. Certain lines were (and are) delivered with a flamboyance of gesture that amplifies the memory. Some of these great acting moments are immortalized by the appropriate media of the times. Sketches and watercolors in the 19th Century have given way to DVDs in the 21st. The results are the same. The process of sharing memorable moments with broader audiences helps to solidify their place in the collective social history of Shakespeare’s work.

Donaldson also examined the relationship between narrative structure and memorable moments. The concepts of discovery and reversal are as old as recorded narrative. Aristotle noted their use by the classical Greek playwrights in *The Poetics*.⁸⁷ Donaldson stresses the power of discovery and reversal to make a narrative moment more powerful and memorable.

The concept of memorable moments leads to a broader understanding of the dynamics of micronarrative. Memorable moments become freestanding narrative units. They begin as part of a broader whole, firmly embedded in the matrix of the complete work. The consciousness of the viewer (or in some cases the larger audience) extracts these moments and preserves them on their own. These memorable moments have a remarkable power to hold our imagination.

This concept applies to gaming. The author still remembers the moment that hooked him on *Ceremony of Innocence*. The second puzzle [F2G] has a goldfish swimming in a goblet on a black field. Interactive cues guide the user’s response. Taps of the cursor on the background emit a dull tick. Taps on the goblet emit a pleasant ‘ting’. The first ting leads to several more, as

⁸⁵ Eric Zimmerman; MIT Games Conference; “Aesthetics of Games Design” Panel

⁸⁶ Peter Donaldson, “The Shakespeare Interactive Archive: Creating Memorable Moments”, *EA Creative Leaders Workshop 1*, (Cambridge, MA, October 2000).

⁸⁷ Aristotle, *Poetics*. Translated by Richard Janko, (Indianapolis: Hackett Publishing Company, 1987) 14-15.

the user happily exercises her agency in the exploration of this most pleasant audio-visual phenomenon.

Ting...

ting...

CRASH!!!!

The glass shatters explosively. The user jumps with a start, as the goldfish lazily swims across the page, and triggers the reading of the card.



“Drinking Like a Fish” [F2G]

This memorable moment has its own narrative arc. The setup is the initial presentation of the card, and the desire to solve the puzzle. The complication is that the user does not know what to do. The development is guided by the sounds of the mouse click, resulting in repeated clicking on the glass. The resolution is the breaking of the glass. The denouement is the fish lazily swimming off the page. The turning of the card is the setup for the next narrative unit: the reading of Griffin’s postcard. This reading will be colored by the image of a trapped entity breaking its boundaries and swimming free. Griffin himself will go through a similar journey, with consequences that are just as shattering. The gameplay has anticipated narrative development.

The moment weaves together this small narrative arc, superb graphics, and clever use of sound. It remediates the interface in order to set up the climax: the transition from mouse clicks to

mouse ‘tings’ as the cursor moves onto the glass. Finally, it relies on the interactive analogue of the Aristotelian dynamics to which Donaldson referred. The user is seeking discovery – the solution of the puzzle, and passage to the next reading. The price (and the reward) for this discovery is a marvelous reversal. Expecting a pleasant but rather mild ting as an outcome, the user gets a shock instead. This has an effect similar to a plot reversal. It is not the classic plot reversal that Aristotle had in mind. The shock itself is visceral, not cerebral. However, it is related in significant ways. The visceral shock leads to a paradigm shift, a disjuncture, a violent recasting of assumptions. For one beautiful and shocking moment, the wine glass was real. The moment of the goblet’s destruction was the destruction of the screen’s glass as well. The interface disappeared, and the user fused with the virtual. The shock of this event reversed the user’s state of mind – she is in the virtual world. The lazy yet triumphant swim of the goldfish leads the user straight into Griffin’s narrative...

The author was seduced by this single moment into a fascination with the game. Other memorable moments followed, but this one is still the best remembered. The shock of the breaking glass was visceral indeed. The author still enjoys introducing others to puzzle two, and waiting for the inevitable “ting.... Ting..... CRASH!!”, and the startled jump that follows.

The Electronic Arts game designers embraced this concept.⁸⁸ They discussed “memorable moments” at length in the Creative Leaders workshops. They worked to isolate some of the factors that went into the development of memorable moments. Their list included: rewards, spectacular failures, replayable moments, bragging opportunities, surprise, novelties, mediated components, and sequenced gaming moments complete with struggle and success.⁸⁹

This list is a rich one. It opens up a series of significant issues and questions with respect to memorable moments and the micronarrative. First, some of these factors imply a modified version of a simple dramatic arc: setup-complication-development-resolution. Second, there is a connection between memorable moments and a reward/punishment dynamic. This is rooted in the fundamentals of human psychology. A stimulus-response-reward cycle reinforces behavior, including gameplay. Third is a hypothesis, or more accurately, a speculation: points one and two above may be related. If so, could one begin to conflate the concepts of dramatic arc and reward-punishment cycle, particularly in the context of interactive gaming?

Narrative arc in *Ceremony of Innocence* – In search of the micronarrative

The concepts of the micronarrative can be applied to the analysis of *Ceremony of Innocence*. The context for this analysis is the identification of the distribution of narrative texture throughout the work. It is particularly useful to find the narrativity in the interactive design that will complement the existing narrative components in the graphics, the animations, and the

⁸⁸ They saw memorable moments as not only potential building blocks for a sense of micronarrative, they are also realize these moments are good business. The implicit assumption is that memorable moments build both fan enjoyment and fan loyalty. The author’s experience is a verification of their instincts.

⁸⁹ All examples from *EA Creative Leaders Workshop I*, “Mini-Workshop II - Creating Memorable Moments”, led by Henry Jenkins; October 20, 2000; Cambridge, MA

moving image sequences. Scale and granularity of narrative is an important part of the analysis. The starting point is the full narrative arc of the entire CD-ROM. The analysis will continue through finer and finer degrees of granularity in order to isolate the smallest unit of the micronarrative.

This search for granularity is a critical part of this endeavor. It allows for a finer degree of description, and therefore, analysis of gaming and of interactive narrative. This will support the critical discourse around interactive narrative. Granularity of narrative object also has practical implications for the development of interactive story. We saw earlier that Eric Zimmerman called for the use of the computer to “combine and recombine small local elements.”⁹⁰ The implication of this statement is that it we should identify the smallest unit of narrative that we can use. There are three conditions needed to realize the goal of recombinant narrative: a system or an engine to carry out the process, discrete and portable narrative objects, and an understanding of the poetics of recombinant story. Finer units of narrative are integral to this development. The finer the unit of narrative that can be identified and parsed, the richer the number of narrative experiences that can be combined and recombined.⁹¹ Granularity of narrative unit is also important for embedded interactive narrative experiences. Smaller interactive narrative arcs allow for a broader distribution of narrativity throughout the work.

The next three sections will address the question: what is the quantum of interactive story, the smallest narrative unit that can be analyzed or manipulated? This approach is the search for the “micro-arc”, the finest narrative unit that still includes all of the elements of the full narrative arc: setup, complication-development, resolution.

The broad narrative arc

Ceremony of Innocence has a total of fifty-eight cards, letters, and associated puzzles distributed across three sections: The Falcon, The Gryphon, and The Sphinx.⁹² In the first section, the main characters are introduced: the closed Griffin in his safe London existence, the free Sabine on her Pacific Island. They share a loneliness, although Sabine has an eye into Griffin’s life. That is the setup. The section one complication is that once Sabine finds Griffin’s real name and location, she writes him. The development is the growth of their mutual interest and love, complicated by Griffin’s fear of her power in his life. The resolution is that Sabine moves to join Griffin, and he flees in panic.

This resolution is not a complete climax, and forms the setup for the next section. The Gryphon begins with Sabine in Griffin’s home, and Griffin in flight. The complication is Griffin’s inner struggle between fear and love. The development is his growing sense of love as he travels. He

⁹⁰ Eric Zimmerman; *MIT Games Conference*; “Aesthetics of Games Design” Panel, February 2000.

⁹¹ There is no claim here that *Ceremony* is itself an example of a recombinant narrative. The order of certain actions can be changed, but by and large the critical points (triggers and pre-triggers) are pre-determined and invariant. Therefore the main path through the game-story is pre-determined. However, the analysis of this story for micronarrative quanta is still a useful activity. The concept of the micronarrative quantum will inform the criticism and the design of both relatively pre-determined and freely recombinant interactive narrative experiences.

⁹² Analogous to the three books of the trilogy: *Griffin and Sabine*, *Sabine’s Notebook*, and *The Golden Mean*.

has an epiphany when he almost drowns near her home. He then resolves to join her once and for all. The resolution is again incomplete. He cannot join her – they seem to exist in the same times, but in separate universes. He remains in his home, alone. She returns to her home, also alone.

As before, this incomplete resolution forms the setup for the next section. The complication is their continued separation into separate universes. A further complication is the intrusion of a villain, Frolatti, into their lives. The development is their continued struggle to find each other (and to separate her from Frolatti). The resolution is more complete than the first two (although it is rife with its own ambiguity). Sabine's final card indicates that the pair has finally joined. Their long dance has ended. There are still ambiguities (what is the nature of their juncture, has a new dance started with a Kenyan doctor), but this phase is over.

Narrative arc in a single puzzle – The Lizard [F3S]

The individual puzzle is the next stage in the search for finer and finer interactive micronarrative. The move down into the level of the puzzle requires the conflation of the language and concerns of narrative with the language and concerns of gameplay. We will start our analysis at the top level, a review of the entire puzzle, then look for smaller narrative arcs embedded within.

The major narrative arc of the puzzle develops the relationship of the butterfly and the lizard. This arc proceeds in the following stages:

1. The setup is the sight of the two⁹³ of them on the card. The lizard is sleepy and slow looking. The butterfly is an inanimate image on the stamp. An implicit part of the setup is that the user knows she has to solve this puzzle in order to move the game/story along.
2. There are a series of complications – the barriers to success embedded within the gameplay. Each barrier is a problem for the butterfly-cursor (the user) to solve. Each one of these is a marker for a smaller arc nested within the larger arc of the entire puzzle (see the chart and discussion below).
3. The overall development phase involves the progressive solution of each of the barriers. In our gaming terminology the early solutions are “pre-triggers” and the final solution is the “trigger”. The user discovers each pre-trigger and the final trigger through experimentation with the butterfly-cursor. In the process the relationship between the butterfly and the lizard is revealed. The butterfly is awakened and then liberated through a long accumulation of user mouse rolls and clicks. The butterfly is then free to navigate the screen, until she moves in front of the lizard – who promptly eats her. The lizard molts⁹⁴, and then spews free the butterfly-cursor. The roles of the protagonists shift. The butterfly switches from prey to goad. She drives the lizard out of the frame with two successive clicks on his body. On the second click he dives through the hole in the card

⁹³ Actually three of them - there is a second butterfly who plays no part in this portion of the arc. However, she does enter the narrative stream later, after the puzzle face flips to reveal the text side of the card.

⁹⁴ The molt itself is interesting. The form of the molt process is that the first lizard avatar - the one that eats the butterfly - feels like a painting on the card. A “live” lizard tears the paper card at the mouth of the original lizard, and seems to crawl out of the image's mouth onto the top of the card. The husk of the original lizard remains inert. At this point the live lizard is ready to be goaded by the reborn butterfly-cursor.

that the butterfly left when she originally freed herself. (He will be found later on the text reverse side.) The pre-triggers are done.

4. The overall resolution is the final trigger event. The trigger is a single click anywhere on the card. At this point the puzzle is solved and the payoff is the turn of the card to reveal the text. Described as an interactive narrative resolution, the butterfly-cursor has finished its work, and the user can get her reward.



The Lizard [F3S]

The butterfly-cursor struggles to free herself

The narrative within this puzzle involves a complicated play of character that includes the user as interactor. At first the butterfly-cursor (the user, or Sabine), is trapped on the page. The user frees the butterfly (and herself). The lizard (Griffin) is somewhat lazy and torpid by nature. He does exercise himself enough to eat the butterfly (Sabine) – and the cursor (the user)! However, his dominance is short-lived. The butterfly-cursor emerges immediately after the lizard's new avatar molts. The interactive design has switched her role from victim to aggressor. The butterfly-cursor (Sabine and the user) chases the lizard (Griffin) through her old outline and onto the other side of the card. Having served her role as bait and goad, the butterfly's (the user's) job is done for now. Her role has mimicked Sabine's, first tempting, then scaring the Griffin-Lizard.



The Lizard [F3S]

The butterfly-cursor goads the lizard

This role will soon resume, when the butterfly follows the lizard even into the next world. This card is one of the few that has gameplay embedded into the text side of the card. As is the convention in such cases, the signal for this is the presence of a live cursor (again, the butterfly) on the text frame. The first of the two miniature interactive arcs on the text side is a continuation of the butterfly-lizard relationship. The lizard is basking on the text of the card as Sabine reads it aloud. The butterfly returns as a goad – one click from her and the lizard scurries away for good. This action can occur once, at any time during the reading. Its effect is to reinforce characterization through gameplay.

A final miniature arc appears at the end of the reading. The second butterfly magically wriggles her outline through the text, (presumably she is on the face side of the card), and one of her wings comes free. When the butterfly-cursor is rolled over the second butterfly and clicked, she frees herself from the card completely and flies away and off the frame. The butterfly-cursor is still free to roam, but the game is done, and the next card (“The Kangaroo with a Red Hat”) comes up.

The micronarrative quantum: the micro-arc

The chart below shows the smaller interactive narrative arcs that make up the puzzle:

	Setup	Complication / Development	Resolution
Puzzle Card			
Micro-arc 1	Graphic presentation of lizard, butterflies. Desire to solve puzzles, hear lexia.	There is no cursor. <u>Much</u> rolling and clicking [Pre-trigger 1]	Butterfly-cursor is finally freed.
Micro-arc 2	Cursor is now free. “I’m free, I can go anywhere.”	“What to do next?” Butterfly rolls and clicks around card. At some point goes in front of lizard’s mouth. [Pre-trigger 2]	Lizard eats butterfly, molts.
Micro-arc 3	Butterfly pops free of lizard’s mouth “I’m back.”	“What to do next?” See the lizard. Roll cursor around. Butterfly approaches lizard, tries a click [Pre-trigger 3]	The lizard runs away.
Micro-arc 4	Lizard stops running. “Lizard has run, and now its stopped?”	“What to do next?” Try another click on lizard. [Pre-trigger 4]	The butterfly drives lizard through hole in card.
Micro-arc 5	“Lizard is gone?”	“What to do next?” Butterfly (user) tries one more click [Final trigger].	The text card rolls over.
Card Text			
Text micro-arc 1	The cursor (butterfly) appears over text, and is live. The lizard from the other side is lounging on card left. This invites further goading.	“Can I do anything on the text side?” “A girl’s gotta goad....” Rollover and click...	On single click, lizard scuttles off for good.
Text micro-arc 2	The cursor (butterfly) is still live. The reading of the text ends. A second butterfly outline starts to wiggle.	One wing of the second butterfly pops free. “Hmm, wonder what I can do with her?” The butterfly-cursor goes to it and clicks.	The second butterfly flies off the screen. The card is finished, and the next puzzle is cued.

Table 5: Micro-arcs in The Lizard [F3S]

The table takes the narrative arc down to a fine level of granularity. Micro-arc 3 is a good example. The molt of the new lizard ended Micro-arc 2. The setup for micro-arc 3 is the sight of the butterfly-cursor popping out of the old lizard's mouth. The user's agency has returned with the protagonist. The complication for the user, as always, is "What to do now? What are the rules for this phase?" The development occurs as the user inevitably explores the space, trying various clicks and rollovers. It won't be long before the butterfly-cursor is clicked on the lizard (pre-trigger 3). Immediately there is a response - the lizard runs away! Their roles have reversed, she is the aggressor, he is the victim, and this phase of the narrative and the gameplay is over.

This conception of the micro-arc describes an interactive micronarrative quantum. Micro-arc 3 exhibits in miniature all of the characteristics of a full narrative arc: setup, complication, development and resolution. In the process of advancing the puzzle, this interactive micro-arc has furthered the plot of the puzzle narrative and added to the definition of the puzzle characters. More significantly, the puzzle narrative acts as a metaphor for the plot and characters of the main story. In this process, the puzzle play has involved the user as an active protagonist in a narrative that is an analogue for the main storyline. This micro-arc demonstrates the capability of a finely distributed narrative texture to fuse narrativity and interactivity throughout a work.

The micro-arc, granularity and the reward cycle

An interesting shift is occurring. As the examination involves smaller and smaller narrative arcs, the domain and the language associated with the phenomena seem to change. In moving down from the arc of the full game to the arc of the puzzle, the discussion of the arc began to include language around gameplay and interface. This is natural. If concepts of interactive narrativity are explored, they must include reference to these interactive domains as part of the analysis and the discourse.

As the granularity gets finer and finer, the analysis approaches the concerns and the language of another domain: behaviorist theory and its stimulus-response models. At this level of granularity we move from the world of humanist narrative theory into the world of human psychology. One could build a behaviorist model of an interactive game process that mirrors the narrative model we have been using. Consider the gameplay and the click that startle the lizard in micro-arc 3. This phenomenon can be described equally well with either language.

Micro-arc 3
Narrative Theory: the Dramatic Arc

Set Up	Complication/Development	Resolution
Cursor is free. See the lizard.	Rolling of mouse, clicking of cursor. Approach lizard, click.	Lizard runs away.

Micro-arc 3
Behaviorist Psychology: S-R Theory

Stimulus	Response	Reward
Cursor is free. See the lizard.	Rolling of mouse, clicking of cursor. Approach lizard, click.	Lizard runs away.

This is a striking correlation. It has several implications.

The correspondence may be striking, but it is not all that surprising. A setup is indeed a stimulus. A response is a development. Resolution is rewarding - that's one of the drivers of classical narrative construction.⁹⁵ We are dealing in an interactive medium, so the psychology of human behavior should have some application. The lesson in this example is that the reversal of butterfly-user role and the successful goading of the lizard is at the same time a narrative resolution and an intrinsic reward for user response. At this juncture user behavior can be placed at the service of story, and praxis becomes a narrative mode.

This convergence can be read as evidence that we have reached the quantum threshold of the narrative micro-arc. We are at the boundary of another domain, one that describes the phenomena just as succinctly and rigorously as narrative theory.

The intersection of these domains contains practical issues that inform the design of interactive narrative. Gabe Newell was thinking along these lines at the Comparative Media Studies sponsored Computer Games Conference.⁹⁶ He was interested in the application of formal behaviorist reinforcement theory (including schedules of reinforcement) to game play. He noted that intermittent reinforcement schedules were the most efficient in maintaining a high rate of response behavior. This effect is experienced by laboratory rats, Las Vegas gamblers, and some video gamers (those trying to figure out a puzzle, or learn some functionality early in a game). In the same session, participant Chuck Clanton⁹⁷ pointed out the downside of intermittent interval reinforcement (irregular and unpredictable reward). The subjects developed high levels of stress, and experienced helplessness and a loss of control.

Both perspectives reinforce (if I can use that word) the potential for the application of behaviorist theory at this level of interactive narrative. It seems clear that the fundamentals of S-R theory form an underlying craft component of game design. Game designers understand, perhaps

⁹⁵ Aristotle maintains that tragedy includes a catharsis of emotions (primarily pity and terror) brought about by a plot reversal or transformation that leads to the resolution of the plot. The catharsis provides the audience with a satisfying and uplifting experience. *Poetics*, translated by Richard Janko, Indianapolis: Hackett Publishing Company. 1987.

⁹⁶ Gabe Newell; MIT Games Conference; Games as Interactive Storytelling Panel; Feb. 11, 2000; Cambridge, MA

⁹⁷ Chuck Clanton, Bullfrog Studios; MIT Games Conference; participant discussion at "Games as Interactive Storytelling" Panel; February 11, 2000; Cambridge, MA

intuitively, the need to reward user interaction as part of the process that draws them more deeply into the game. What is interesting in terms of this exploration is the tight convergence with narrative theory under the comparison with the micro-arc.

The micro-arc comparison from *Ceremony* shows that at a fine degree of granularity, narrative resonance can be attached to the reward cycle, enhancing the user's experience of story. A single action can carry with it a miniature but relatively complete narrative framework. Each move, each keystroke has the potential to move forward both the gameplay and the development of the narrative. There is some degree of narrative sensibility carried down to the level of the individual mouse click. The result would be a narrative texture that resembles a fractal effect: the work subdivides into smaller and smaller narrative arcs, while each arc reflects and supports the broader arc of the entire piece. This is an expressive and highly distributed poetics of interactive narrative that serves to reward user agency and support immersion in the story.

Conclusion

Interactive Poetics in *Ceremony of Innocence*: Texture and Focus

Ceremony of Innocence demonstrates two important directions for the development of the poetics of interactive narrative.

The first direction is the diffusion of narrative texture throughout all aspects of an interactive work. The creators of *Ceremony* use the component craft of interactive multimedia not only to directly build the plot, but also to reflect and amplify critical narrative elements such as character, theme, and emotion. The story is built directly through the performances and the lexia. Narrative elements such as character, theme, and emotion are echoed and supported in the font choice, graphics, music, sound effects, animations and the short movies. These component media become channels for the diffusion and reinforcement of narrativity.

This is narrative texture: a highly saturated distribution of theme, character, and emotion throughout all aspects of the work. The designers of *Ceremony* have learned the same lessons the Expressionists taught to the cinematic community. Filmmakers routinely use all of the components of film craft in order to build mood, express emotion and resonate theme and character. The close readings reveal the same widespread distribution of narrative texture across the various media elements of *Ceremony*. It may or may not be an Expressionist work⁹⁸, but there is no question that it is a highly expressive one, incorporating a broad diffusion of narrativity.

The second direction that *Ceremony* highlights is also expressive: a focus of narrative development at the interactive center of the experience. The analysis of the close readings reveals two examples of this phenomenon: the interactive micronarrative (reduced to the micro-arc) and the remediated cursor. They begin to describe a concept of interactive narrativity, which forms a critical subset of narrative texture. While narrative texture is the infusion of narrative sensibilities across the entire work, the micro-arc and the remediated cursor are situated squarely in the interactive domain. As such they are associated with the core poetics of interactive narrative.

⁹⁸ The question of expressionism is difficult to answer with respect to an interactive work. The litmus test used earlier for an Expressionist work was the exaggeration of style to the point of hypermediacy. This test is more easily applied to a film than to an interactive work - because almost all interactive works partake of a level of hypermediation. However, this base level of hypermediation relates to the experience of the interface, not to the exaggeration of craft. There are some exceptions to this inevitable interactive hypermediacy: veteran gamers who can ignore interface, our general erasure of the fact of the mouse when using the standard GUI, perhaps some elegant virtual reality environments. For most other interactive experiences, a level of hypermediacy is a given, and therefore this test for expressionism is difficult to apply. The test is further complicated in *Ceremony of Innocence* because of the specifics of the work. A puzzle by definition calls attention to itself, so the hypermediation test is compromised even further.

The interactive micronarrative

The explication of the interactive micronarrative in the thesis involved a search for narrative arcs at finer and finer levels within the gameplay. These smaller arcs and micro-arcs are used as opportunities to reinforce the themes, emotions and character attributions of the complete work. The identification of the micro-arc is the culmination of this closer and closer analysis of interactive micronarrative. The micro-arc operates at interactive narrative's finest granularity (at a scale co-equal with that of an individual stimulus-response event). The user can experience, and the designer can incorporate, narrative content at the level of the individual mouse click. Analysis of the lizard puzzle [F3S] demonstrates the extent to which *Ceremony of Innocence* has incorporated the micronarrative to reflect and support broader narrative goals.

The remediated cursor

Earlier in this paper we examined the use of the remediated cursor in *Ceremony of Innocence*. The thematic close readings reveal that this interface transformation serves two functions. It forms the basis for the gameplay, and acts as a vehicle for the reinforcement of narrative concepts. This is an expressive use of the design of interactive narrative. The cursor is the nexus of the graphical user interface. All interaction flows through this device, and as such it is the vehicle for the user's agency. It is difficult to imagine a more powerful locus for the expression of interactive narrativity.

Ceremony of Innocence pushes hard in this direction. Sixteen of the puzzles have iconically transformed cursors, and 12 of these have functional transformations as well. These functional transformations tended to involve various degrees of restriction on cursor freedom. This is used to reflect the characters of the protagonists. There is a correlation between the degree of cursor restriction and the card's authorship. Griffin's cards have more highly restricted cursors - Griffin's personality is tight and constricted, afraid to change. Sabine's cards tend to have freer cursors - Sabine is free and open, ready to understand and follow her own instincts.

At the same time, the restricted cursor reflects and instantiates broader themes of the story. A free and transparently functional cursor is the essence of our expectation with graphic user interfaces.⁹⁹ Constriction of that freedom, refusal of that functionality, is both frustrating and mysterious. We don't understand it, we don't like it, and we don't know how to make it stop. We are forced to confront our own expectations about interface. This latter experience is what Kristin Thompson calls defamiliarization. She discusses the role of art, maintaining that it is a kind of mental exercise that can renew and recreate our understanding and our enjoyment of the everyday world.¹⁰⁰ She goes on to say that the works of art that we single out as the most original either "defamiliarize reality more strongly or defamiliarize the conventions established by previous art works". Her final point echoes Clement Greenburg's discussion of the avant-

⁹⁹ Jakob Nielsen maintains a good interface should be easy to learn, easy to remember, efficient to use, resistant to error, and subjectively satisfying. Jakob Nielsen, *Usability Engineering*; 26.

¹⁰⁰ Kristin Thompson; *Breaking the Glass Armor*; 10 - 11

garde: “In turning his attention away from subject matter of common experience, the poet or artist turns it in upon the medium of his own craft.”¹⁰¹

This is precisely what the creators of *Ceremony of Innocence* have done. They have created a work that subverts, defamiliarizes, and comments on the most ubiquitous and unnoticed phenomena in digital culture: the mouse-driven graphic user interface. This is not only art, it is narrative art. The gameplay puts us in the place of the protagonists. Our reactions of confusion, frustration, and discovery parallel the experiences of Griffin and Sabine. They too have their struggles and insights; their mysteries and solutions are mirrored in our attempts to control the cursor and solve the puzzle. This is interactive narrativity. It goes beyond the telling and showing of story to include the experience of story.

Ceremony of Innocence is a rich source for exploring the emergent poetics of interactive narrative. Story themes and characterizations have been distributed broadly throughout the work, and incorporated within the interface and game design. The work demonstrates the introduction of narrative texture into the heart of the interactive process.

Interactivity and Narrative

The close readings and analysis of *Ceremony of Innocence* inform the answers to questions about interactive narrative: Is there a fundamental disconnection between the gameplay and the story? Has the inclusion of the gameplay added or subtracted value with respect to the narrative experience?

One answer is that gameplay may add a new dimension on top of the direct experience of narrative. Consider Thompson’s perspective on the role and function of art. If the creators of *Ceremony* have designed a work that leads to a defamiliarization of the interactive experience, they will have created a commentary on the medium itself. A certain number of interactors will recognize the purposeful connection of interactive design to the narrative experience of *Ceremony of Innocence*. Tom Carey sees this user understanding of aesthetic process as an example of higher level interface design, calling it a “shared construction of meaning”.¹⁰² This shared construction occurs at the level of a meta-narrative, a conversation on interface and story between the creators and the interactors.¹⁰³

¹⁰¹ Greenburg, Clement. “Avant-Garde and Kitsch,” *Art and Culture Critical Essays*. (Boston: Beacon Press, 1961)

¹⁰² This concept grew out of a discussion where the author was struggling over the core questions of the thesis with Professor Carey (July 20, 2001). Carey asserts “Interface is a conversation with the user about the meaning of the artifact.”

¹⁰³ This is consistent with David Myers’ observation on Chris Crawford’s analysis: “...according to Crawford, the best measure of the success of a game is that the player learns the principles behind that game ‘while discovering inevitable flaws in its design . . . A game should lift the player up to higher levels of understanding’”. Myers, D.; “Chris Crawford and Computer Game Aesthetics”. *Journal of Popular Culture*, 24(2), 1990; 27.

This still leaves the question of the narrative experience itself. Has the gameplay added to or detracted from the experience of story in *Ceremony of Innocence*? There is certainly some loss in attention to story, a diversion to a non-narrative activity. At the same time, there are gains on the other side of the scales. The puzzle play is enjoyable in and of itself, even if it is in part non-narrative. More substantively in terms of our argument, the gameplay functions as a multi-level narrative metaphor.

A comparison of the lizard card from *Griffin and Sabine* with the lizard puzzle from *Ceremony of Innocence* demonstrates the metaphoric value of gameplay in this work. The card in the book can be seen as containing allusions to the characterization in the main story, but the connection is weak at best. An inert lizard may be read as Griffin, and a butterfly on a stamp can stand for Sabine, but it is difficult to label these as compelling metaphors. There is no hint of a plot connection in the book's card. The gameplay in *Ceremony's* puzzle is a different case. The initial behavior states set up more robust connections with character. The self-satisfied, torpid lizard and the active butterfly parallel the personalities of Griffin and Sabine. The game behavior goes on to develop a relationship between these characters through a series of micro-arcs that collectively mimic the broad sweep of the main story arc. Here the gameplay has added to the richness of the narrative experience.

The gameplay creates another narrative potential - the emotions felt by the users during their interactions. Incidents of success, frustration, surprise, or discovery make for memorable moments in part because of their emotional impact. Film theory provides some insight into this connection. Sergei Eisenstein recognized the strong connection between the energizing effect of human emotion and the development of the cinematic experience. His "attractions" were moments of strong emotion. They could be used to create associations in the viewer's mind with the ideas and concepts the filmmaker wished to portray. Eisenstein sees these associations as intellectual, but for most filmmakers the associations are narrative. The slow motion shot of the lovers running to each other in *Elvira Madigan*, the shower sequence in *Psycho*, Lillian Gish on the ice in *Way Down East* all have intrinsic emotional weight, and these raw feelings are harnessed in the service of story.

Ceremony has many examples of memorable moments that are driven by emotional "attractions" and at the same time support the development of narrative through association. "Drinking Like a Fish" [F2G] is an archetype. The shock of the glass breaking is a strong moment of attraction. The impact of that attraction is metaphorically tied to the narrative through evocations of plot and character. The net effect is a memorable moment that carries association with story. The e-map [F5S] is another instance: the shock of the earthquake and the delight of the critter stampede is a rehearsal for the imminent narrative shock of Sabine's surprise revelation that she can see Griffin's paintings through some other-worldly connection. "A Passing Shot" [G3G] uses emotional reversal as an attraction. The puzzle sets up the probability of a gunshot killing a man. In the interactive event the user does solve the puzzle by directing the bullet to his head, but instead of blood the consequences are a colorful rainbow and light musical notes streaming from his head. This outcome presages Griffin's insight that he still deeply loves Sabine, and that his fear of her can be overcome.

These specific examples (like the close readings) from *Ceremony* support the argument that gameplay can and does add value to the narrative experience. Interactive theory provides a broader perspective that supports this conclusion. One source is the work of Janet Murray. Murray has built a framework for the examination of new media, or in her terms: digital environments.¹⁰⁴ Murray defines agency as an interactor's sense of their own autonomy and power as they interact with the environment. Murray goes on to describe immersion as the submersion of the interactor within a pleasurable (or at least compelling) world. One way to pose the question of the interactive/narrative disconnection is to ask: is the exercise of agency incompatible with the state of immersion? Can I be aware of my power and choice, and at the same time lose myself to the pleasure of a narrative environment?

This is the rock that the traditional Vancouver filmmakers hit in their deliberations.¹⁰⁵ The aesthetic touchstone for many cinematic storytellers is the concept of "suspension of disbelief". One of the wonders of cinema (or reading, or theatre) is the surrender of the self into the storyworld of the experience. The dancing photons on the screen become the reality. The viewer suspends her "disbelief" in the reality of the image. The image becomes real. In the process the objective conditions of reception disappear. The world of the screen dominates everything else. The darkened room, the light of the projector, the rows of seats, the occasional coughing, rattling, talking of the audience - all these no longer exist.

Many of the filmmakers seemed to assume that this process was a passive surrender to their own craft and art, and that an active viewer was incompatible with the narrative magic of "suspension of disbelief".¹⁰⁶ They forget Coleridge's full phrase - he understood the active volition of the reader, and referred to the "willing suspension of disbelief". Kristin Thompson's neo-formalist approach understands Coleridge, and upholds the active participation of the viewer in the experience. Janet Murray's views are consistent, she also argues that viewers transcend the passive: "We do not suspend disbelief so much as we actively *create belief*."¹⁰⁷ (Italics hers.) Murray sees the digital environments as new opportunities to create belief. In her analysis, immersion is not inconsistent with agency, but both can grow out of a good interactive narrative design.

Jay Bolter and Richard Grusin address this issue in *Remediation*.¹⁰⁸ They posit a dynamic between two different forms of mediated experiences. Immediacy is related to transparency, to "suspension of disbelief", to "looking through the interface". Hypermediacy implies an awareness of the process of mediation, a looking at, rather than through the interface. The two

¹⁰⁴ Janet Murray; *Hamlet on the Holodeck*.

¹⁰⁵ See Bizzocchi and Bizzocchi, *Birth of a Notion*, discussed earlier under "Context: Game and Story".

¹⁰⁶ "In this idea originated the plan of the 'Lyrical Ballads'; in which it was agreed, that my endeavours should be directed to persons and characters supernatural, or at least romantic; yet so as to transfer from our inward nature a human interest and a semblance of truth sufficient to procure for these shadows of imagination that *willing suspension of disbelief* for the moment, which constitutes poetic faith." [Italics mine] From *Biographia Literaria*, (Oxford: The Clarendon Press, 1907).

¹⁰⁷ Janet Murray; *Hamlet on the Holodeck*; 110.

¹⁰⁸ Jay Bolter and Richard Grusin; *Remediation*;

processes interplay in a complicated process of remediation. The relationship of the dynamic of remediation to the question of any “disconnection” is straightforward. The traditionalists argue that narrative enjoyment depends on immediacy of experience: a “suspension of disbelief”, an erasure of the act of mediation, and a submersion within the narrative. Can this immediacy of narrative experience be combined with an active and hypermediated interaction with the event? Can one “look through” and “look at” the interface at the same time? Bolter and Grusin argue that you can. This tension between “looking at” and “looking through” is one of the core dynamics of remediation. They see a “logic of transparent immediacy” within computer games like *Myst* and *Doom*.¹⁰⁹

Lev Manovich works similar territory with his concept of “oscillation”. He believes that the new media engender in the user an oscillation between a transparent screen (and experience) and an opaque screen (and experience). He is quoting Anatoly Prokhorov¹¹⁰, but he is echoing Bolter and Grusin. He sees the subject constantly changing role from viewer to user, as the screen changes from a representational device to a control device. He believes this oscillation (a dynamic remediation in Bolter and Grusin’s framework) is inherent in the aesthetic of New Media. Manovich goes on to ask his own version of the disconnection issue: “Can Brecht and Hollywood be married?” Manovich argues that people have developed an ability to funnel narrative into distinct channels within a single but heterogeneous interface. He believes people engage in “cognitive multitasking”, and are capable of switching seamlessly between the different modes that a modern HCI presents.¹¹¹ In this analysis, there is no inherent contradiction between interaction and narration.

These theorists are convinced there is not necessarily a disconnection between the interactive process and the enjoyment of narrative. They eloquently describe the skill set that interactors bring to the digital environment: the ability to switch back and forth between immediacy and hypermediation, to negotiate between agency and immersion, to oscillate and multitask between different cognitive channels. The evidence from *Ceremony of Innocence* validates their conclusions. The creators of *Ceremony* also realize that interactivity and narrative are not necessarily disconnected, and then carefully work to join the two. Close analysis reveals the systematic use of expressive craft to suture and fuse the narrative and interactive pleasures of the experience.

In the end, the fact that *Ceremony* is successful on its own terms is not the most important outcome of our quest. *Ceremony of Innocence* performs a more valuable function. Its creators point interactive narrative design in two significant directions: the widespread diffusion of narrative texture throughout all aspects of a work, and the focus of narrative expressivity within the center of the interactive process. Of these two broad directions, the latter is the more interesting. The experience of narrativity in the act of the gameplay goes beyond metaphor and beyond our traditional narrative modes. It embraces user experience as a direct narrative function. The interactor is not only told and shown the protagonist’s concerns, the interactor also

¹⁰⁹ Jay Bolter and Richard Grusin; *Remediation*, 29, 42

¹¹⁰ Lev Manovich; *The Language of the New Media*; 207-208

¹¹¹ Lev Manovich; *The Language of the New Media*; 210

lives some of the protagonist's concerns. This carries narrative texture into the central poetics of the interactivity. In the process, *Ceremony of Innocence* goes beyond diegesis and mimesis. The work throws into focus the importance of praxis as a fundamental narrative modality. The further development of this mode for narrative expression will advance the craft and the art of interactive storytelling.

Ceremony of Innocence has useful lessons for both the creators and the critics of other interactive narrative works. It is tempting to see this as two different conceptual directions with separate objectives for divergent groups, but that should not be the case. There are good arguments for a shared discourse between the communities of critics (academics, journalists, writers) and the communities of creators (games producers, website designers, artists). Henry Jenkins doesn't see a necessary gap between gaming as an industry, gaming as a developing art, and gaming as the object of critical or academic analysis.¹¹² On the contrary he sees the potential for powerful synergies between what could be perceived as divergent manifestations. One of the catalysts for this synergy is a shared critical discourse. The discourse can act as an enabler, allowing practice and criticism to inform each other. A grounding in practice and an understanding of the concerns of creators enable a more informed criticism. A grounded criticism in turn speaks more directly to practitioners, and will accelerate the development of a more sophisticated practice. Jenkins refers to the work of Gilbert Seldes in the book *The 7 Lively Arts*.¹¹³ Seldes pointed out the cultural importance and artistic integrity of the popular arts of the day: jazz, motion pictures, comics. Gaming is in a similar position today, and a discourse that involves academics, critics, popular journalists, and practitioners will develop the art of gaming. The same is true for interactive narrative in general, whether it involve games, websites, virtual realities or art installations: a grounded discourse will advance the art and the craft. Using a series of close readings as the foundation of the analysis for this thesis is a recognition of the need for a tight relationship between practice and theory.

The communities of critics and the communities of creators can find the same lessons in *Ceremony of Innocence*, although they will use them in different ways. Each can see the importance of a widespread distribution of narrative components (story, character, theme and emotion) throughout all aspects of the interactive work. The development of a broad narrative texture will help ensure a more robust narrative experience. Similarly, critics and creators can see the effectiveness of a narrative sensibility that is focused at the point of interaction and manifests in the user's experience as a narrative praxis. The critics, whether academics, authors, or journalists, can use these two concepts as analytical tools. Their application against an interactive narrative provides an orientation for observation, description, analysis, explication and evaluation. Creators will use these same analytical tools as practical guides for various phases of the production cycle. During the planning stage, the project can be reviewed to ensure that narrative concerns will be incorporated within the interactive design and across the range of component media. During the production and post-productions stages, an awareness of narrative texture can act as a mindset, reminding all members of the creative team that narrative sensibility is a key outcome, and therefore to seek and utilize any and all opportunities to reinforce story,

¹¹² Henry Jenkins; Opening Session, MIT Games Conference, Cambridge, MA, February 2000.

¹¹³ Gilbert Seldes, *Seven Lively Arts* (New York : Sagamore Press, 1957)

character, theme and emotion. Ultimately, it will be the users of interactive narrative experience who will reap the benefits of the lessons that *Ceremony of Innocence* has provided.

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