

***Ceremony of Innocence* and the Subversion of Interface: Cursor Transformation as a Narrative Device**

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ABSTRACT: There is a potential inconsistency between the experience of story and the process of interaction. Many interactive narratives ask the interactor to switch between an immersive state of immediacy and a hypermediated awareness of process. The paper examines the interactive CD-Rom *Ceremony of Innocence* and identifies two design strategies that are used to suture any potential disjuncture. One is the saturation of narrativity throughout the entire work. Analogies are drawn to both classic Expressionism and a more widespread expressivity in cinema. The other is the subversion of the interface itself to reflect narrative concerns. Narrativity is thus situated both globally and at the heart of the interactive experience.

KEYWORDS: interactive narrative, immersion, suspension of disbelief

INTERACTION AND SUSPENSION OF DISBELIEF

In 1994 I organized a series of discussions with Vancouver filmmakers about the creative possibilities to be found in the emerging interactive form. [5] My colleagues and I asked each filmmaker to play with current examples of story-based interactive CD-Roms (including *Myst*, *The Seventh Guest*, *Under a Killing Moon*, *Freak Show*). Afterward, we explored their reactions to these works. The filmmakers had many observations about creative possibilities for this interactive medium. However, most felt that there was a basic contradiction between a state of narrative immersion (the classic suspension of disbelief) and the process of interaction within the CD-Rom experience.

It is eight years later, and interactive narrative has progressed a long way from those earlier experiences. However, the relationship between interaction and narrative immersion is still problematic, and not just for those in the traditional media. The video game industry

has made the incorporation of narrative sensibilities within an interactive environment a high priority, yet thoughtful members of the gaming community lament that we have yet to find a video game that can make us cry.[1]

If we accept that the exercise of overt interaction may have the capacity to disrupt some types of narrative experience, what are the implications? In particular, what are the implications for the creators of interactive narrative? Can we identify some strategies for interactive narrative design that help to suture any potential disjunctures?

The interactive CD-Rom *Ceremony of Innocence*. [13] contains a rich field of design clues to guide the fusion of narrative with and within an interactive environment. The work is an adaptation of a print trilogy: *Griffin and Sabine*. [2][3][4] The original trilogy is a unique and multimediated literary experience combining post cards, letters you pull out of envelopes, the intensive use of graphics, and calligraphy. The books are epistolary - the story of the protagonists' love affair unfolds - both figuratively and literally - in the fifty-eight post cards and illustrated letters collected in the trilogy. The story traces the efforts of the two artist-protagonists to find and engage each other across barriers of space and time. The narrative explores issues of love, death, identity, and sanity in a context of mystery, confusion, mis-direction, and struggle.

Reviewers (e.g., Cauty [7], Herz [10], and Rosenberg [16]) find the experience of the CD-Rom adaptation engaging. The engagement is due in part to the legacy from the print works: the love story, the ebb and flow of the protagonists' encounters, the lush use of graphics. The strategy for the translation from print to CD-Rom builds on the complete inclusion of the existing words, graphics, and narrative components (character, plot, theme, emotions) within a new interactive context. However, access to each of the lexia (the lovers' postcards and letters) requires that the user solve a puzzle. Each puzzle is based on the graphics of the post card or illustrated letter. Some credit is also due to the intrinsic interest of the puzzles themselves - they are varied and witty, and each solution is rewarded with a miniature, animated set-piece followed by the reading of the next lexia. However, this paper concentrates on a specific view of the CD-Rom experience. How has the design of the work, including the interactive design, bridged any potential disjuncture between the interactive process and the enjoyment of story?

DESIGN STRATEGY: NARRATIVE TEXTURE

In broad terms, my readings of *Ceremony of Innocence* revealed two strategies that mitigate against a disconnection of the narrative experience from the interactive environment. The first is the inclusion of narrative sensibilities throughout the full work. The plot, theme, characterization, and mood of the narrative are reflected in the "look and feel" of the entire experience.

There are analogies here to the classic expressionist cinema, and to a more widespread expressive cinema. The expressionist filmmakers exaggerated craft in order to portray emotion. In the words of Thompson and Bordwell: "Expressionism... reacted against realism and turned toward extreme distortion to express an inner emotional reality rather than surface appearances." [18] The expressionists were noted for their use of set, 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 cinematic craft variables were used by the expressionists to show and to elicit emotion.

It is important to recognize that 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, theme, and story. This use of craft can be aesthetically ubiquitous. [18] The heart of the narrative is embedded in cinema's core creative concerns: editing, directing, scripting, acting, shooting. However, any opportunity to use film's component crafts to reflect and augment character and story will be utilized. Narrative sensibility is distributed throughout an expressionist work.

Most filmmakers use a similar tactic, although it is applied with restraint within a more modulated expressivity. The expressive infusion of narrative throughout a film's craft begins with the same recognition of cinema's multi-modal capabilities. Film contains many component crafts, and all can be used expressively - to build the aesthetic goals of the entire work. For narrative works, this means systematically modifying craft decisions to resonate with 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. The same production logic will lead a documentary videographer to shoot a university professor with her bookshelf in the background. This craft decision also enhances mood, defines character and builds the story experience. 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 signifies and supports both character and ambience.

This process describes the development of a *narrative texture* – a broad infusion of the sensibilities of the narrative across the entire cinematic experience. Emotion, character and story themes can be reflected in all of the subsidiary modalities of cinematic craft, distributing narrative across the entire work.

The creators of *Ceremony* build a diffused narrative texture in exactly the same way. They draw upon all the components of interactive multimedia both to build the story directly, and to broadly reflect critical narrative sensibilities. The plot is built through the lexia (the text of the cards and letters) and the performances (the reading of the lexia). Narrative elements are echoed and supported in the font choice, graphics, music, sound effects, animations and the short movies. These component media act as parallel channels for the infusion and reinforcement of narrative concerns.

Character, for example, is amplified through the subsidiary visual craft of the game. The graphics and textual forms (font and calligraphy) reflect the protagonists' personalities, concerns and emotions. These visual modalities are derived from the books, but are remediated in the context of the game. The graphics become animated, as do parts of the text. New moving pictures are added, as are sound effects and music. All of these support and extend character development. Most significantly, the qualities of the performances themselves magnify the narrative effect of the written words. Isabella Rossellini's seductive warmth, Paul McGann's vulnerability and petulance, Ben Kingsley's oily Frolatti and dark Yeats add emotional impact to the formal text.

This narrative attention to the entire range of various craft decisions is not a simplistic or mechanical add-on process. It is rather the consistent exercise of an integrated sense of poetics. Just as in cinematic art, this understanding of the expressive use of all of the medium's potential is used to design and build a rich story-world that supports a robust overall experience.

ICONIC TRANSFORMATION OF THE CURSOR

One of the most significant visual variables in *Ceremony* is the treatment of the cursor. 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 graphic user interface as explained by Leach et al: "...by directly manipulating objects and data visually [GUI] users are given a sense of direct engagement and of control [11] The cursor's look is transformed relatively frequently in *Ceremony*: sixteen cards/letters out of fifty-eight change the look of the cursor.

This is a powerful location for visual decision-making. 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 Sabine's Lizard card [F3] (*Figure 1*), the cursor icon becomes a butterfly that catalyzes change and flight in the lizard. In one of Griffin's cards [F18], the cursor is Pierrot (*Figure 2*), 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, goading her partner to flee. Pierrot's journey and destruction presage Griffin's own fate. These connections represent an expressive use of the cursor's graphic quality. As such they are analogous to the use of the magnifying glass cursor to enlarge selections of text, or the paint-can cursor to pour color into closed shapes. The cursor's look communicates 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).

There are definite trends in these visual choices. Griffin's cursor iconography tends to be relatively prosaic: mammals, things, people. Sabine's are less grounded, more other-worldly: birds, bugs, angels, familiars, a ghostly paintbrush. There is a connection with flying in both sets of cursor icons. Griffin has two cards with airplanes. 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 other-worldly one. Griffin's two flight icons are mechanical devices - and one of them crashes! There is also 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 seem to represent an iconic differentiation of character between Griffin and Sabine. The visual transformations of Griffin's cursors project two sensibilities. The first is to the ordinary, the mechanical, the limited. The other connection is to sadness and death. Sabine's visuals 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 graphic representations both reflect and reinforce character.

DESIGN STRATEGY: STORY, GAMEPLAY, AND THE ROLE OF THE CURSOR

Not all the transformations of the cursor are visual. The remediation of cursor function is a recurring device in *Ceremony of Innocence*. These remediations directly conjoin interaction with narrative. In Wave [G17] a tumbling cursor is problematic for the user. The cursor seems to work, but its actions do not lead to the puzzle solution or to any other reaction from the beach shore environment. However, after a bit of cursor thrashing around and mouse clicking by the user, a wave suddenly washes over the card, tumbling the cursor to the bottom of the screen. After a brief pause, the cursor then becomes responsive, and user agency is restored. It's a trick. The user behavior (rolling and clicking) that seems to bring in the wave is completely superstitious. The wave (and the cursor control) is on timer. This experience is indirect and

frustrating, but it is consistent with a general sense of frustration and difficulty associated with Griffin's puzzles. It also mirrors the immediate plot - this card follows Griffin's tale of helplessness, surrender, near drowning and fortuitous rescue by an outside agent.

Another tumbling cursor occurs in the letter envelope graphic of Griffin and the Sphinx [G9] (*Figure 3*). This time the cursor tumbles down a huge sand dune, initiated by the breath of the Queen (her face is on the stamp on the letter). Thematically, this can be connected to feelings of Sabine's power over Griffin. In this puzzle there is also another more powerful cursor remediation - the swat. The cursor gets swatted when it approaches the spinning propeller of a dirigible near the Queen's stamp. Like the tumble, the propeller spin and the subsequent cursor swat is impelled by the Queen's breath. Other swats include the cursor flying away upon approaching a spinning apple ("Frankie and Johnny" [F14]), or a spinning top (Top [S7]), and an emphatic flick when the cursor clicks on the Samurai Cat's tail [G12]. The swats, like the tumbles, involve a loss of user control, and both 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 deny that volition, at least temporarily. Once recovered the user is free to continue the quest. The user seeks salvation in the puzzle's trigger, but, like Griffin, is no longer confident in the normality of the world and its interface.

Even 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. In Dark Angel [S1] 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 [G18] puzzle shows that, when distorted sufficiently, a similar remediation can be devastating to the user, replicating the struggles of the protagonists to understand, navigate, and master their worlds.

CURSOR FUNCTION AND NARRATIVE IMPLICATIONS

These puzzles transform the operational characteristics of the cursor, and an analysis of the craft decisions informs the fundamental issue for this paper: the relationship between interactivity and narrative. The cursor is central to the experience of the interface. If narrative is situated at this point, story is embedded within the heart of the interactive process.

The cursor is not an invariant entity. 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 - its position, motion, and effect - is under the control of the user. She 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 XeroxPark/Macintosh/Windows desktop.[15] The user assumes a direct and perfect connection between moving the hand (the mouse) and seeing the cursor move on the screen. The mapping and its conventions must be learned, but they are 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. 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 invisible relationship between hand, mouse, cursor and eye is operantly reinforced each time we use the GUI.

In Murray's [14] terminology, our agency in this regard is complete and absolute. The hand moves the mouse, and the cursor automatically follows. We are unaware of any intervening mediation. In Bolter and Grusin's [6] scheme we experience a complete immediacy. (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 hypermediated 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 section above a number of functional cursor manipulations are described: the tumbling cursor, the swat, the mis-mapped cursor, and the missing cursor. This transformation of cursor functionality is a gaming device that can also be used for narrative effect.

It is interesting to return the subset of the sixteen iconically transformed cursors. Presumably any functional transformation associated with these cards was associated with at least some consideration of the cursor's expressive potential (since the decision was made, presumably thoughtfully, to modify the appearance of the cursor).

A review of the set of sixteen iconically transformed cursors does in fact reveal an extensive use of functional transformation. Further analysis seems to indicate a narrative impact associated with these functional transformations.

Four of the sixteen have cursor-figures that are completely free to range the screen. A review of the remaining twelve puzzles reveals the following types of compromised cursor freedom:

- one begins with the cursor restricted, then becomes relatively free in the course of the game play
- 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 a 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.

A closer look implies a relationship between these functional transformations of the cursor and a narrative concern - the characters of the protagonists. Sabine has seven of these sixteen cards, while Griffin has nine.

The four free cursors are all found on Sabine's cards (such as the butterfly in the Lizard card - see Fig. 1). None of Griffin's cards has a completely free cursor. The remaining twelve cards have some degree of restriction in the cursor action. Nine of these are Griffin's and only three are Sabine's. 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 (such as the Pierrot card - see Fig. 2), 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.

This is a consistent pattern. Freedom of action tends to be associated with Sabine's cards. Griffin's cards have significantly more restrictions on cursor movement. 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. This has implications on two levels. First, there seems to be a counterpoint to actual motion in the plot. Griffin travels far 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, more ready 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, tricky, and unpleasant. A level of difficulty is consistent with a puzzle game, of

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course, but this particular difficulty will tend to make Griffin's puzzles more frustrating. We feel trapped –sometimes obviously, sometimes subtly - but trapped in any case. This direct experience mirrors Griffin himself. We associate his cards with visceral feelings of restriction and limitation. The question of balance is a key poetic. The design of this interactive narrative works if it de-centers the user experience enough to allow puzzle play, yet not so much as to irreparably tear the fabric of the overall experience of story-world. Manovich [12] refers to this dynamic process as the “oscillation” between the screen as representation device and as control device. He argues that users are indeed capable of this oscillation. If that is the case, the conflation of puzzle frustration, cursor subversion and character (Griffin) can help to suture any potential disconnection between the exercise of interactive choice and the enjoyment of narrative.

The exact impact of the experience will certainly differ from user to user. The individual reader experience of any work is ultimately beyond the control of the authors, or the understanding of any particular critic. However, these effects do 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 these 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. Diegesis and mimesis are augmented with a third narrative mode: that of praxis. Story is developed not just in the telling, or the showing, but also in the doing.

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Figure 1: Card F3. The cursor icon in this Sabine card is the butterfly at the top of the screen. It roams freely, and has power to chase and change the other protagonist - the molting lizard.



Figure 3: Letter G9. In this Griffin letter, the Queen blows the cursor down the sand dune - sending it tumbling and taking control away from the user.



Figure 2: Card F18. The cursor icon in this Griffin card is the comic character, "Pierrot". This cursor-character has very limited lateral movement. It bursts into flame upon the successful solution of the puzzle.

Screen shots taken from the CD-Rom, *Ceremony of Innocence* [13].