THE PEARL

by

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Abstract

The Pearl is an interactive, multi-linear video installation that explores how

narrative content and information are conveyed, how meaning is negotiated among

author, content and viewer, and how the subjective nature of truth can be

manipulated by media. In this work, projected as a 12' x 9' image on a gallery wall,

twelve actors perform the same monologue. The footage has been edited utilizing

midi and video sequencing technology into segments that either default to

randomized playback, or are triggered by the viewer via the user interface. The

monologue is addressed directly to the viewer, traverses much emotional terrain,

and implies an existing relationship. Construction and deconstruction of the

monologue's meaning via the randomized playback and viewer control create

shifting perspectives of the content.

This paper serves as documentation of **The Pearl's** origin, production, and

exhibition, and endeavours to contextualize the work within select interactive

narrative research, theory and academic framework.

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Overview

Introduction

This paper is an examination of my graduating project, entitled <u>The Pearl</u>. I identify the origin of the work, define a context for it within recent research and study of interactive narrative, and explore the facets of the work that actively engage concepts and theory of that study. Analysis of the work is achieved through close reading of its production, structure, and exhibition, and via examination of artworks that incorporate related methodologies. Throughout, I articulate the findings of my project and research in the form of observations, experiences and realizations, Lastly, I consider <u>The Pearl</u> in terms of my own practice: what I set out to do, what the actual results were, and what I learned in the process.

Many years ago, I was in conversation with someone whose rather acerbic sense of humour amused me. She had recently had an experience that both annoyed and puzzled her. An acquaintance of hers had felt the need to clarify something that had transpired between them, and did so by dropping by unannounced, in person, and talking non-stop for half an hour, fully monopolizing the conversation. There was no opportunity for response, conversation or defence. Some people call this 'dumping,' as in to 'dump on someone.' The person I was speaking with laughingly

called it 'a pearl,' commenting how people 'give each other pearls' as in pearls of their perceived wisdom, somehow framing criticism as an offering of assistance, devoid, perhaps, of ill intent. I was struck by how her perception of the interaction differed so radically from her friend's, and how both differed from my own. The curiousness of it all stayed with me, and years later, I found myself returning to it. This project is a close-up of 'a pearl' in this sense, as I understood it described by my friend. For me, it also functions conceptually as a rumination on human nature, how we sometimes gradually gloss over the irritating bits of emotional sand in our human interactions, and unwittingly present them as random, pearly gifts to others whose perception of them may differ radically from our own.

Origin

My art practice has two recurring areas of interest. First, I have an ongoing fascination with how meaning is assembled in the narrative realm. While certainly the subject, or 'viewer,' is generally understood as being a party to the construction of meaning, precisely how and when certain pieces of information are made available can completely change the meaning, tone or dramatic impact of an event or story. Time based media is infamous for this quality, the proverbial news sound bite of a major world event reducing an event of massive magnitude to a fifteen second insert before the next fragment of so-called news. Secondly, a particular observation has long held great interest for me; namely that the truth in any event is truly a matter of perspective, a position easily influenced by many things. To me,

truth is inherently subjective. Perhaps this is part of the human experience: to realize that what we, naively, may have understood as being black and white is in fact increasingly and thoroughly grey. As an artist working primarily with time based media, my work has routinely exhibited key reference to these observations, via exploration of alternate narrative structures, editing processes and theory, and through the utilization of technological changes that bring new potential to the way we share information, tell stories, and experience the world. I am enormously interested in what I see as the vast, potentially exciting, and sometimes frightening possibilities that technology holds as a vehicle for storytelling, for the narrative that is human experience. Technology has an unlimited potential to change the way we experience narrative.

The exigent state of narrative located at the intersection of storytelling and technology has found a fertile climate in developing technological forms, many of which are computer related or associated with rapid advances in electronic production. These technologies and the work that pushes the boundaries of how they are used are slowly and subtly evolving how narrative is experienced. Artists working within emerging media forms afforded by technology have an opportunity to invoke new aspects of the relationship that exists between viewer and screen, author and reader, viewer and object. Therein lies the potential to enhance, even evolve, the viewers' sense of involvement via a perceived or actual measure of collaboration or participation. This ability to represent relationships in an

increasingly functional way differs from the relationship evident in other mediums such as literature, cinema or visual art, and adds significantly to the creative palette available to artists (Meadows 147). My purpose in creating The Pearl has been to examine existing and evolving notions of interactive narrative—of the functional relationship between the viewer and interactive media—and to attempt to produce a work that embodies these notions in a way that satisfied my artistic goals.

Project Overview

Physical Description

Upon entering the exhibition space, the viewer is immediately able to sight a 12' wide x 9' high video image projected on the wall. The video image is split into four quadrants, each occupied continuously by a closely framed head-and-shoulders shot of a person. Any or all of the four people visible at any moment are directly addressing the viewer, with whom almost constant eye contact is maintained. Many common facial dynamics present in everyday conversation are evident—eyebrows raise and lower, pauses in delivery occur, etc. There is a conversation taking place. The viewer, however, is not able to hear the conversation. Each quadrant frequently switches to another person, but there is no discernible pattern to the switching. Occasionally, one or more of the frames freezes, the actor's expression caught in that moment. The points at which these freezes occur are also utterly randomized, and as such, frequently happen at awkward moments. Expressions are frequently captured in contortions of a grimace, eyes half closed, or mouth agape. The overall effect is compelling, engaging. It permits the viewer a voyeuristic, yet legitimized, overt examination of another person's face. In everyday life it is not necessarily commonplace to stare at one another in such a frank fashion, and rarely during a moment of such extreme facial contortion. The fact that there are twelve performers in total, diverse in age,

gender and race, make this opportunity all the more appealing, as there is a variety of facial types to examine.

Approximately ten feet in front of the projection is a wooden structure resembling a lectern, hereafter referred to as the interface. Finely crafted from birch wood, it carries an air of formality, and insinuates some authority. Upon its slanted top is a black handset, and below the handset is a keypad. There are no directives or instructions to associate the interface with the image, other than that it faces the projection. However, the handset is obviously from a telephone and clearly references that familiar device. The lack of audio, the direct address of the performers, and the familiarity of a handset, all subtly guide the viewer to pick the handset up. The invitation to do so resides in my specific choice to render the projection silent, and in trusting that the viewer would understand the handset as delivering audio. This was clearly a reasonable assumption, as I did not witness any reticence or confusion regarding the role of the handset in terms of viewers interacting with the piece during the exhibition.

By lifting the handset, the viewer becomes party to the audio from the projection. There is no other audio than the performance monologue. The quadrants randomly start and stop, sometimes in mid sentence, sometimes not. Only those clips that are actually playing are audible; there is no sound associated with the freeze frames. At this point, the viewer may or may not choose to press the keypad. If keypad interaction occurs, the viewer is able to trigger which performer or performers are viewed.

Interaction

When the viewer lifts the handset, the audio from any and all quadrants that are playing can be heard simultaneously. The quadrants play back in a random fashion by virtue of how they are programmed. If the viewer does not interact with the keypad, the system continues with its self-generated playback. However, if the keypad is utilized, video clip control is triggered by the viewer. Each key pressed corresponds to a section of the monologue which is associated with one of ten banks of the content. Once selected, each clip plays alone. No other quadrant will play simultaneously while that key is depressed. However, if multiple keys are depressed at the same time, multiple clips are triggered to play simultaneously. Furthermore, the responsiveness of the system is relatively high; clip playback is immediate, and each press of a key causes the clip to restart from the beginning.

There are nineteen keys on the keypad. None display any symbols or markers to indicate what each key is linked to; the keys are all black. I wanted the viewer to explore the keypad, but not to seek or arbitrarily locate the 'right' key. The effect here is complex: the viewer quickly discovers how to trigger clips, then almost invariably sets about trying to figure out how to keep track of which key is associated with which performer. Many viewers quickly develop an affinity for one performer or another, and subsequently 'search' for them on the keypad, but the keypad and performer patterns also change over the course of the piece. It is virtually impossible to view the entire work as delivered from just one performer.

This was a curious gestalt, with some viewers trying to pursue a particular

performance, attempting to assemble it, and ultimately to piece together a story.

Process

Many aspects of the creation of <u>The Pearl</u> are inextricably tied to my research. Everything from the writing of the monologue through production and post production naturally influenced the structure of <u>The Pearl</u> in numerous ways, such as the degree of user control, viewer awareness of their position with the monologue content, and what limiting audio meant. I have organized these and other key considerations into four logical sections: The Monologue, Casting and Character Development, Production, and The Interface.

The Monologue

Each of the twelve actors onscreen delivers the same monologue, given in a direct address fashion. The performer continuously addresses the viewer, and the nature of the monologue insinuates a prior acquaintance with the viewer. The content of the monologue itself is a carefully constructed series of relatively commonplace conversational phrases. They are somewhat generic, even banal in parts, written intentionally free of specific reference. The effort was to create a monologue that could act as a kind of a common denominator, something relatively easy to relate to (within constructs evident in much North American life). See Figure 1, Monologue from <u>The Pearl</u>. The length of the monologue varies from performer to performer, ranging from eight to fifteen minutes, depending upon

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delivery style and tempo. I wrote the monologue with a specific ear to the rhythm of language, with more concern for the flow and feel of the words than for impeccable grammar or formal structure. In Figure 1, the content in brackets was eligible for substitution by the performers, acknowledging that the various characters assumed by the actors would not necessarily make sense saying precisely the same thing.

The monologue was written and revised over a course of approximately six months, and I worked both alone and collaboratively with the performers. When the final monologue version was completed, I was startled by how closely it resembled my original version, written very quickly. Despite months of work and evolution, the monologue ultimately concluded in a form not that different from its first draft. This perhaps speaks to an important aspect of the work: I felt that the sense of spontaneity that can be so difficult to generate and capture would be diluted by an overworked script. This aversion to dilution is something I have also struggled with in terms of inclusion of the entire monologue within this paper. For to read the whole monologue is to consume it as a whole, to think one has perceived and digested its meaning. In actuality, however, the finite entirety of the monologue is not at all what is of greatest importance to me—it is the perception of the understanding that occurs through the piecing together of the fragments, the exposure to different performances of the same content. This is the importance of the constructed response of the viewer—allowing the viewer to explore the liminal aspects of narrative, that which exists in between the fragments of content. To read the script of The Pearl in its entirety is to miss the point of the piece, to dilute the

experience and forego the purpose of my research. To read it is to hear it in but one voice, while to experience it is to interact with a chorus.

Figure 1: Monologue from <u>The Pearl</u>

Hey there! Good to see you! Haven't seen you in ages. Where've you been hiding? I've heard you've been busy. Well, I guess it's the same for me. What a rat race. I've been completely swamped lately, just can't seem to get ahead of the game. Anyway how are *you*? I mean really? You look good . . kinda tired. Healthy though. But different. You've changed something. No, no, no, I don't mean that in a bad way, I meant that as a compliment.

So, what else have you been up to? Still doing the same old same old? You know, I was passing through your neighborhood the other day, and I thought about dropping by to say hi. So I called that number you gave me before, but its not in service, so I figured you must have moved or something. Did you? Well, I knew I'd run into you sooner or later. Never would've imagined it'd be here though. Who'd a guessed? I didn't think you came to places like this. I mean, I don't usually either, so what are the odds that we'd *both* be here at the same time?

It really is good to see you. I miss our conversations. Sometimes it felt like they were the only thing that made sense or something. I'm so tired of it all. I sure never thought I'd end up doing what I do. Bet you didn't either, hmm? Nobody ever grows up to be what they thought they would be. Seems most people just <kind of fall into what they do>, either they're born into it or life just unfolds around them in a certain way and the next thing they know . . . I know I never figured I'd been in the <business> I'm in. Time passes so fast though, <a blink of the eye and a year or five has passed and there you are, none the wiser.> Just look at us. . last time we saw each other what was it, 10-11 months ago? Just after my birthday. Keep in touch, we said, and we both meant it, but then things got busy - and look at us now.

Anyway. I don't know why I'm going on like this. You know me, I don't normally talk much, I'm a very private person. So this is crazy! But you know, you've been on my mind, I wish I could have told you more easily how important you are to me. Things would have been pretty rough

without you, especially when <my brother died>. I guess I'm not very good at expressing myself. Or saying I'm sorry. Not that I'm saying sorry now, I'm not. I have no regrets. I don't have time.

Anyway. . yeah. . I saw our old friend Don/Dawn the other day, at some <party>.You don't remember Don/Dawn? Well, Don/Dawn sure remembers YOU. Certainly had a thing or two to say about you. S/He was pretty loaded, carrying on and all. Started singing <'I did it my way'> <this or other tune, spoken, hum or sing>. Yep, Don/Dawn sure thinks you're a very. . . <unique> . . individual! Oh. . . hey! I'm so sorry, I didn't mean to embarrass you or anything. Well yeah, you look like you're …blushing or something. Look, I wouldn't worry about it, I wouldn't say a thing to anyone!! Well I guess I *might* have said something at that <party>, but no one would remember, I mean everyone had had a little too much to drink, me included. And besides, you know, nobody cares. Nobody gives a <shit>. So don't look so worried, and you know, you really don't need to pretend like you don't know what I am talking about, that <really bugs me>. I do, I know all about it. . . . Dawn/Don told me . .

I've been wanting to talk to you about something else. Remember that time we were all downtown together? About a year ago? No? Yes you do, I know you do. Well, I didn't say anything at the time, I mean it would've just turned ugly, but you know, you were a real jerk to me that night. Yes, yes, you were. I couldn't believe it, actually. Whatever made you think its ok to treat someone like me like that? I could have <slapped you>. But I didn't, because I didn't want to <ruin the night> for everyone. Who the <hell> do you think you are anyway? I always knew I'd get around to telling you to your face one day. And here we are. And just like I thought, you'd stare at me with that <stupid> look on your face, that <who me face>? As if you had no idea what I was talking about. Well, fuck you. Fuck YOU.

You know, looking at you, I keep thinking about self-preservation You know, you gotta do what you gotta do. But at what cost, hmm? I've seen you do some pretty shitty stuff. And get away with it too, at least so far. You think no one notices, but I see what you're up to. It wasn't that hard to figure out, you're not as smart as you think. Ah, well. Who is? But you seem to think no one sees what you're really doing, but they do, you know. And it's going to catch up with you one of these days. <S'Gonna jump up and smack you in the face.> A big reality check, that's what you got coming in the mail. And its gonna bounce. Your soo running out of

luck. Everyone can see it except you, ain't it always the way? But no one would ever look you in the eye, tell you that to your face, except maybe me. So lucky for you, it's a good thing we've run into each other. I know you'd do the same for me.

Ahh, I've been wanting to get that off my chest for while! Look, I better get going, and I can see you're in a hurry too. But it's been good seeing ya. Take care of yourself, You deserve it. Give me a call sometime if you want to go for <coffee or a beer> or something. It good to clear the air, isn't it? See where each other is coming from. Not that we've ever had this kind of conversation before, but hey, things change. And change is good. See, don't you feel better? I mean, how many people can you trust to tell you the truth, the *real* truth?

Casting and Character Development

An open call for performers was placed in local papers, circulated through actors' training studios, and posted online. I contacted two talent agencies and circulated postings through them as well, and obtained a Union of British Columbia Performers (UBCP) waiver in order that union actors would be able to participate without concern. I requested headshots and resumes, but was sure to make it clear that less experienced actors were also welcome. Response was overwhelming, and I was particularly surprised by the calibre of performers, a number of whom were exceptionally experienced and even high profile within the local acting community. I created an informational website describing the project, giving an example of the screen layout, general concept, and contact information. An observation from one of the respondents gave me some insight as to why the response was so strong. He

said, "This is an interesting project. It's a challenge to consider performing for an interactive audience." I had carefully worded the call for "diverse performers of any age or background wanted to perform monologue for a Master of Fine Arts project. Ample screen time, collaborative process welcomed, union waiver in place." When I received close to one hundred responses, I quickly moved to work with a Production Manager to handle the logistics of scheduling and meeting those selected for audition. The selection process was particularly arduous, but approximately forty performers were asked to audition. I scheduled two days in which to meet and screen everyone, provided each in advance with the same section of the monologue, reminded them of the screen composition, and emphasized my interest in eye contact and believable performances.

Approximately ten hours of auditions were shot on video, from which twelve performers were finally chosen. I made the selections primarily based on my perception of the calibre of each performance. While I maintained an awareness of cultural diversity and gender, I did not want these considerations to completely govern my end decisions. Rather, my overwhelming desire was to locate performances that, again, offered the strongest sense of authenticity.

Chosen actors were then provided with the full monologue and scheduled for rehearsals. I met with most actors once or twice. Based on the audition tapes, I wrote back stories for most of the characters, meaning that I further developed characters and perimeters for each actor to utilize in refining and individualizing

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their performance. These back stories were drawn from my perceptions of the audition, and in an attempt to extrapolate on what I felt would be the strongest possible contributions from each performer to the project. During rehearsal, these proposed back stories were discussed with rather than presented to the performers, and were ultimately woven together with what the performers felt was working for them. It was a long but very rewarding process, during which I had many additional insights as to possible interpretations for the various components of the monologue. The variety in nuance, tone, and inflection from the twelve permutations of performance is at the core of <u>The Pearl</u>. Developing these voices, collaborating with the actors, striving for a strong sense of authenticity were all contributing factors that enabled the actors to bring their strongest performance to the screen. Ultimately, the collaborative path chosen in working with actors was an essential factor in the development of this project. Without such strong performances <u>The Pearl</u> would have simply not worked.

Production

Following the casting, shoot logistics were worked out. I preferred to work with a small crew, and employed a camera/lighting person, sound recordist, makeup artist and production manager. We decided that despite the fact that it would make for a long day, shooting everything in one day would be best. The chosen timeline required a carefully orchestrated schedule and a great deal of fore planning. Aside from serious considerations in terms of composition, camera

movement, lighting and sound issues, there was the complexity of the performance itself.

A ten-minute monologue is an arduous text for an actor to memorize. I addressed the impracticality of this largely unrealistic task by structuring the monologue in a fashion designed for segmented delivery, incorporating pauses in shooting, clarifying that I did not expect a fluid, non-stop delivery. I did not try specifically to control exactly where the segment breaks were for each actor, though most found them at more or less the same place in a common visceral response to the writing. However, I had learned from the audition process that when the script breaks fell in subtly different places, it added greatly to my exploration of nonlinear narrative. Actors were permitted to have 'cheat sheets' from which to reference their lines. The stipulation was that they could reference their cheat sheet at any time, provided they returned to complete eye contact prior to resuming their performance. All were encouraged repeatedly to take their time, get their line, return to the camera. While we worked hard at having a very low key set, the stress on the performers was quite high, as they knew their entire screen time was framed in close up. Further, the proximity of the camera, lights and microphones gave them little space to move during their performance. It was very hot and confined.

Each actor was shot primarily in two continuous takes. I encouraged them to repeat lines as needed or desired, and to repeat entire sections if necessary. I

know from much experience as an editor and artist working with time-based media that I prefer too much rather than too little material in the post production process. Once each actor finished a take, I highlighted for them any sections I wanted to hear differently, striving for language and feel suitable to their characters.

Once the material was shot, the massive job of postproduction began. Hours were spent logging footage, organizing clips, and managing media. This stage of the project involved figuring out how to manage the collection of clips, essentially fragments of the story I intended to tell. From a purely practical and organizational standpoint, development and management of this project was fairly complex. The monologue is approximately eleven hundred words. Performance duration ranged from eight to fifteen minutes. The monologue content is structured in ten components, which, when multiplied by the twelve performers, resulted in well over one hundred and twenty discreet clips. Each of the ten components, hereafter referred to as "banks," is independently attended in the programming code, and, within its data bank, each clip is discreetly accessed via a corresponding key on the keypad. The rotation of the banks of data is automated in sequential fashion via midi sequencing, which changes approximately every two minutes. The point at which a viewer actually accesses the data bank is arbitrary; the viewer has equal odds of beginning the viewing experience at bank one or bank ten. Each data bank contains clips corresponding with each of the twelve performance sections. Five

keys trigger clips from each data bank, resulting in an interleaved structure. See

Figure 2: Data Bank Structure.

Figure 2: Data Bank Structure
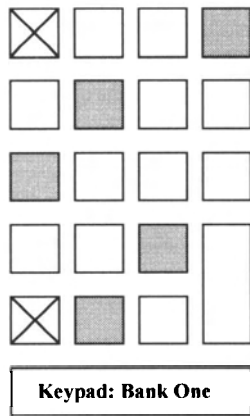
Each Data Bank contains one of the ten sections of the monologue. Each of the twelve performance clips from the associated section are available via the keypad. In addition, five clips from the next section are available, creating an interleaved content format akin to foreshadowing. Two keys, marked with an 'X' on each keypad, are null throughout for technical reasons.

Keypad: Bank One

In **Bank One**, at left, the white keys represent clips from section one of the monologue. The light grey keys represent clips from section two.
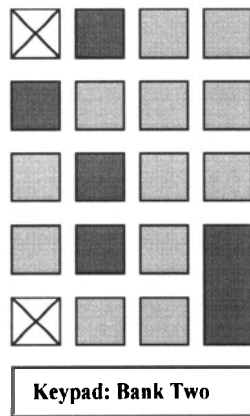
In **Bank Two**, at left, the light grey keys represent clips from section two of the monologue. The dark grey keys represent clips from section three.

In each data bank, the clips change their key assignation. The same performer is not found on the same key in each data bank, nor are the clips from the following section consistently located or from the same performer.

The data banks are programmed to rotate approximately every two minutes. The user cannot control which data bank they are viewing. This gives The Pearl an element of classic narrative structure, balancing the randomization and fragmented quality.

Keypad: Bank Two
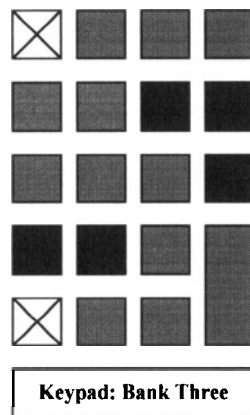
In **Bank Three**, at left, the dark grey keys represent clips from section three of the monologue. The black keys represent clips from section four.

Upon pressing a key, the viewer will see and hear the associated clip. While the key is depressed, the clip will play and loop. If released, then depressed again, the clip plays from its beginning.

Clip response time is very fast; tapping the keys creates an effect similar to that used by video jockeys. More than one key can be pressed at once. This permits the viewer the opportunity to literally mix the content, and is a very engaging aspect of The Pearl.

Keypad: Bank Three

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The Interface

The programming of <u>The Pearl</u> can perhaps be considered extensive but not overtly complex. Because groups of clips have the same programming code, some ease of production was met once the template for clip perimeters was determined. While it took a great deal of time to develop this programming template, once achieved, it was used with only minor variation for the majority of the clips. Simple USB to midi signals trigger each video clip. A high degree of playback responsiveness was attained by careful management of the software particulars, including refinement of the compression algorithm that was applied to each of the video clips. Keeping clip file sizes down improved playback, a routine media consideration. Several different compression combinations were used; different skin tones responded differently to compression so customization occurred where it was called for. Audio editing was substantial: locating the precise frame where I felt the delivery best started, smoothing the usual production issues, and determining how the exact placement of each edit would affect content. In this respect, <u>The Pearl</u> is entirely edited; the viewer has no control over where each clip starts and ends, though they have inadvertent control over playing and replaying each clip, and can reorder its playback within its own data bank.

Analysis

Despite copious discourse regarding digital media, the struggle for a common vocabulary with which to reference the various aspects of its creation remains conspicuously absent. It is common to hear terms such as interactive, narrative, and viewer used one way by one scholar, then presented with different intention or in alternate context by another. While similar lack of clarity is obviously evident to a degree in many fields, it is currently particularly persistent and problematic in digital culture. This is no doubt due in part to interactive media's birth from a host of disciplines rather than from any single trajectory. The vocabulary is not standardized, and meanings are fluid and transient. I begin with these comments to highlight the need for some measure of clarification of terms, essential in describing and discussing The Pearl, as outlined in the introduction. For the purposes of this paper, I employ the term 'viewer' as meaning what also may be understood as the subject or audience, the individual who is actually interacting with the piece. Additional clarifications are to follow, as I have interwoven selected, relevant research within my analysis, clarifying sometimes contradictory terminology and conceptual frameworks from several key scholars of the study of interactive narrative, including Janet Murray, Lev Manovich, Jay Bolter, Richard

Grusin, Eric Zimmerman and Mark Meadows. I thus examine <u>The Pearl</u> through the lens provided.

Framework

Interactivity is perhaps the most over used and ill defined of all the terms associated with new media, and is included in what Eric Zimmerman refers to humorously and accurately as 'naughty terms' in need of discipline. [Zimmerman 23] He has executed discipline by sifting and separating the often subtle yet essential distinctions required to more properly understand the various natures of interactivity. These definitions help differentiate between types of interaction, for example the difference between watching a film, surfing the internet, or traversing a hypertext novel. Zimmerman astutely notes that the modes are neither fixed nor mutually exclusive, often overlapping and appearing in combination with one another. Below are the four modes, as articulated in his essay "Narrative, Interactivity, Games, and Play". [Zimmerman 16]

Mode 1: Cognitive Interactivity; or Interpretive Participation with a Text
This is the psychological, emotional, hermeneutic, semiotic, reader-response kind of interactions that a participant can have with the so-called "content" of a text. Example: you reread a book after several years have passed and you find it's completely different than the book you remember.

Mode 2: Functional Interactivity; or Utilitarian Participation with a Text
Included here: functional, structural interactions with the material textual apparatus. That book you reread: did it have a table of contents? An index? What was the graphic design of the pages? How thick was the

paper stock? How large was the book? How heavy? All of these characteristics are part of the total experience of reading interaction.

Mode 3: Explicit Interactivity; or Participation with Designed Choices and Procedures in a Text. This is "interaction" in the obvious sense of the word: overt participation such as clicking the nonlinear links of a hypertext novel, following the rules of a Surrealist language game, rearranging the clothing on a set of paper dolls. Included here: choices, random events, dynamic simulations, and other procedures programmed into the interactive experience.

Mode 4: Meta-interactivity; or Cultural Participation with a Text. This is interaction outside the experience of a single text. The clearest examples come from fan culture, in which readers appropriate, deconstruct, and reconstruct linear media, participating in and propagating massive communal narrative worlds.

Janet Murray, media theoretician and Director of Georgia Tech's Masters Program in Information Design and Technology, identifies four properties of the digital environment that I find helpful when applied in conjunction with Zimmerman's modes. She sees these properties as **procedural** (able to execute a series of rules), **participatory** (the executables can be induced by the viewer), **spatial** (able to represent navigable space), and **encyclopedic** (extending human memory in vast measure (Murray 71). I also find Lev Manovich's concept of **database** fits well within Murray's term of **encyclopedic**, to which I would add a database's ability to cross reference, search, and present such data relationally. I find these definitions particularly useful in refining the over-used terms such as "new media." For example, through her lexicon, Murray allows us to see that a

digitized analog photograph in and of itself is not considered new media, but that a viewer-navigable, architectural walk through a proposed building is.

For Murray, interactivity can be understood as a combination of what is both **procedural** and **participatory** (Murray 75), and can result in a sense of **agency** (126), which can be very simply understood as our sense of the immersive environment as being responsive to our virtual or actual actions. Notably, Murray devotes an entire chapter to the complex concept of agency, which is key to interactive narrative. One of the goals, perhaps the "holy grail" of many new media environments, is a fully reactive environment, in which every action and choice made by the viewer directly, explicitly and invisibly affects plot, with infinite possibilities of outcome, in which the viewer retains a strong sense of agency throughout. This concept of interactive narrative, ardently pursued by many, remains a goal some believe to be, in fact, unattainable. (Glassner) As Murray also notes, we do not expect to experience agency within a narrative environment. This element of unexpectedness intrigues me, and was a key consideration in developing The Pearl. While I do not believe The Pearl achieves full agency in the sense that a viewer's choices will alter the content of the work, there is a substantial measure of agency inherent in the viewer's engagement with the interface, and, more importantly, in the intellectual engagement of viewing and choosing between multiple narrative streams.

Circuit

The notion that interactivity is new is absurd to many fine minds; there have been many powerful and sophisticated assertions that interactivity in art far precedes the era of gadgets, gizmos and screens. (Bourriaud 44). Manovich concurs, articulating that "All classical, and even more so modern, art is 'interactive' in a number of ways. Ellipsis in literary narration, missing details of objects in visual art, and other representational 'shortcuts' require the user to fill in missing information." This type of interactivity is clearly within Zimmerman's Mode 1, Cognitive Interactivity or Interpretive Participation, and is fairly ubiquitous.

In time based media, we also have the scientific phenomenon of persistence of vision, the ability of the eye to perceive a series of rapid, still images as a single moving image. This phenomenon makes it possible to see the sequential projected images of a motion picture as life-like constant movement, and is a kind of involuntary physical interactivity.

In The Pearl, the viewer is "spoken to," yet not truly addressed, creating a tension due to the viewer's inability to respond. Yet, the viewer is able to switch between performers, to find one more engaging than another, for individual reasons. This is the interactive quality of the work, which demands that the viewer

play an active role to fully experience the piece. It is more than just triggering clips; viewers' choices can be influenced by innumerable, subtle, individual preferences, relating to which performer they find most interesting facially, vocally, and appealing in terms of gender, race, and sexual attraction. On an emotional level exist varied viewer responses to the language, such as the ability to deal with expressed grief and direct confrontation. These factors play an important underlying role in the interactive elements of The Pearl, and constitute an example of what Zimmerman articulates as Mode Three: Explicit Interactivity.

Interactive media, like many other art forms, requires the viewer in order to complete the work, much like the closing of a switch enables a simple electrical circuit to complete its path. The circuit exists in a kind of stasis until the switch bridges the gap, resulting in the completion of the whole. In interactive art, the viewer relates as a switch to the artwork, a switch that must be consciously thrown by viewers themselves via a degree of physical participation as opposed to perceptual action—such as simply looking or listening, as in the cinematic example. Without the viewer's participation, the meaning of the work is entirely incomplete.

Canadian artist Janet Cardiff's site-specific audio projects such as *Walk Muenster* illustrate this concept clearly. Donning an audio headset, the viewer listens to and physically follows the artist's navigational directions through actual time and space. Having previously recorded her own walk through the same space,

she has captured sound effects specific to the environment surrounding the viewer, but not taking place at the time of viewing. Thus, when the viewer passes a playground, they might hear children's voices, though in the exact moment of viewer experience, there are no children to be seen. The result is an eerie displacement of time and place, both present and not present, an overlapping of time and space. The work is not fully realized until this interactive circuit is closed, via the viewer's assumption of a participatory role.

Examples such as *Walk Muenster* perhaps show us one way interactivity can be seen as a contemporary example of Barthes' notion of the writerly text [Barthes 145], whereby the reader is an active participant in the construction of meanings, though the reader is not physically active the way a viewer is in some interactive works. While I concur with the common argument that simple mouse clicking—or even the more complex triggering of sensors—does not constitute interactivity 'per se', there exists another consideration, an expanded 'gestalt' whereby the action of the viewer results in a realization of the work as a whole, as something more than the simple sum of its parts. Many different analyses of this view of interactivity exist. Some focus on viewer inclusion [Laurel 94], experiences of agency [Murray 79] or a sense of immersion [Ryan 168]; although all express aspects of the essence of interactivity, none encompass it in its entirety.

A key observation was made by David Bolter and Richard Grusin, who identified the nature of the viewer in interactive work as performative. [Bolter and

Grusin 213] The rich history of viewer interaction in theatre, performance and visual art is important to recognize and position in terms of interactive media. What do today's technologies foreshadow in terms of viewer involvement and viewer participation? Murray's astute reference to Star Trek's holodeck as the kind of entertainment machine that Aldous Huxley dreaded offers insights into our mixed reactions towards the possible manifestations technology offers. [Murray 18]

In The Pearl, the concept of the performative manifests itself in several ways. The viewer is immediately implicated as being part of a conversation via the direct address of the monologue. Though the work can be experienced from a primarily physically passive role (when the viewer watches The Pearl without engaging with the interface), it is not possible to experience the full range of the work's meaning without physically participating. I consciously made the decision to structure levels of access for the viewer with the intent of drawing them in. I wanted there to be a way to experience the piece from a passive standpoint as well as an active one—a kind of reward system, one that promotes the sense of one's action causing a result. I frequently feel disappointed by work that does not lure me to the next step, that remains utterly dormant, needing the viewer to push the button or click the mouse. To me, a dormant, inactive structure immediately reduces the sense of immersion, and calls attention to the very seam that exists between passive and active roles. I wanted to blur this boundary, to ensure the viewer would not be overtly aware of specifically what their interaction was

affecting, and when it was occurring. Certainly the handset and keypad are an obvious point of entry into the piece, but the randomized programming went further towards masking viewer perceptions of whether or not interactive elements actually exist. Numerous viewers inquired whether I had installed sensors to trigger clip playback based on viewer movement, light disturbance, or audio pickup. Thus, in terms of interactive ambiguity, The Pearl succeeded.

Another performative aspect of The Pearl results from the responsiveness of playback. When a key is depressed, a clip plays from beginning to end in a loop, until the key is released. If the key is pressed and released repeatedly, the clip resets to the beginning each time. Response is very fast; the key can be pressed as quickly as a piano staccato and the clip will keep up. The resulting effect is engaging both visually and aurally, much like disk jockey turntable techniques, or more accurately, video jockey work. This type of technology is frequently employed in club, music and rave environments, in which live mixing of video imagery is utilized in an often highly experimental and advanced manner. It was observed during the exhibitions that this facet of The Pearl occurred was engaged by more youthful viewers, accustomed to gaming techniques and rapid changes in content. These viewers literally "played" The Pearl, constructing combinations and playback routines unexplored by other viewers.

Database

Artist Lynne Hershmann, who astutely and humorously delineates her artistic practice as occurring either B.C. (before computers) or A.D. (after digital) was among those pioneering artists interested in exploring the digital database as an art form. The first of her interactive works was *Lorna* (1982). The seminal art videodisc *Lorna* is a labyrinthine journey through the mental landscape of an agoraphobic middle-aged woman. *Lorna's* passive relation to media and life is juxtaposed with the viewer's new-found agency to select and reassemble the narrative's branching themes, stories, interpretations, and conclusions. It is multi-linear: dramatically different, concurrent narratives are available for the viewer's consideration. This piece is of historic importance as an early example of both a multi-linear and interactive experience with an underlying database structure. There are several possible outcomes in *Lorna*, and it is the viewer who chooses which to view. This interactive structure relates to, yet is distinct from such classic cinematic examples as filmmaker Akira Kurosawa's landmark work, *Rashomon*, in which the details of an event are retold from four differing perspectives.

Both *Lorna* and *Rashomon* are multi-linear, but only *Lorna* employs a database in the way articulated by media scholar and artist Lev Manovich. Manovich refers to the database as a new cultural form (225), astutely identifying a similarity of structure and experience that exists within many forms of new media. Manovich refers to elements in a database as being equally and simultaneously

accessible by the viewer, such as on an audio CD in which a bank of data (in this example, songs) has each component equally readily available to the viewer. Manovich's identification of the database structure as characteristic of many forms of new media is compelling, but raises some concerns.

Manovich categorizes a database exclusively as content not accessed in a linear fashion. In this sense, he considers an audio CD a database, but an audio cassette not. The distinction he makes compares forced linear progression—the need to fast-forward or rewind in linear fashion in order to reach the desired data—versus random access acquisition of data, in which data is immediately and non-linearly available. These are characteristics of analog versus digital constructs. Yet this ability to easily access data in a non-linear fashion is not new. A book's content may be randomly accessed, a vinyl record may have the last song played first. I believe the role of the database has deeper implications than the simple ability to reorder and access data quickly. Evolving technological forms that enable more rapid and complex access of content need to be reconsidered in terms of the evolving role of the viewer. Viewer retrieval of database elements, the nature of the elements themselves, and our acclimatization to this form of media all deserve scrutiny.

Manovich positions database and narrative as natural enemies. He questions the possibility of narrative's existence given the nature of a database's structure, which, he argues, inherently subverts the sort of progression upon which narrative

depends. He proposes that narrative may be replaced by a new, albeit linear, "cultural algorithm:" that of reality-to-media-to-data-to-database. (Manovich 224)

The Pearl employs a database construction; indeed, it is a direct exploration of database (an artifact of contemporary culture) as cultural form, of random access, and of my long-standing engagement with evolving technologies. From a narrative standpoint, I was not interested in writing a monologue that was in and of itself multi-linear. There is, for all intents and purpose, only one monologue—twelve performances, but only one monologue. Although The Pearl has a multi-linear structure in terms of parallel content streams, it contains no multi-linear content. Content itself is not inherently either linear or interactive; it is the presentation of content and its access by the viewer that renders it thus. My research interest lies not in developing alternate outcomes in the written narrative, but in exploring the relationship between narrative and the viewer. I am intrigued by the potential changes in viewer experience when offered the ability to quickly reorder narrative elements and thereby render malleable, via their participation, the viewer's construct of meaning. It was from that point of departure that the structure of The Pearl evolved. It is essentially structured as a database comprised of twelve monologue performances making up ten banks of data. Each bank is a section of the monologue, and each performer's delivery of that section is represented in each bank. Therefore, not every clip of the entire monologue is equally or readily available to the viewer at each moment, as I controlled the cycling of the ten banks

of data via programming. By doing so, I attempted to maintain a balance between the multi-linear aspects of the piece, and the natural progression of more traditional narrative structure. The purpose of this was avoidance of a simple collage effect, whereby all the narrative elements were jumbled together. I did not want to create a mere puzzle, I wanted to draw out and heighten the viewer's role in the construct of meaning, to engage their sense of agency. In a practical sense, what I believe is that the human element, in the form of the viewer, holds the ultimate level of import and potential power in any interactivity. Technology merely offers us new ways of experimenting with this relationship.

Immersion

An ideal often found in popular culture posits that new media objects/events should be increasingly psychologically engaging—immersive—expanding the traditional concerns of literature and cinema into new forms. Currently, the narrative content and structure in many interactive works leaves much to be desired. Consideration of early interactive DVDs or online multi-user gaming environments reveals overtly simplified narratives lacking any resemblance to the refined forms found throughout literature and cinema. This is understandable if one perceives interactive narrative as being in its infancy. It has a long way to go before it matures, both technically and conceptually. Moreover, it is interesting to note that high profile game developers such as Electronic Arts are including content

developers and story writers equipped with an understanding of these compelling narrative issues. The level of narrative complexity in interactive forms is evolving.

Part of the reason—and need—for this evolution is that information access and immersion compete against each other within most new media objects. Simply put, what the viewer may need to do physically in order to continue the experience may interfere with the experience of immersion. For example, a common observation of computer based installation art is that the act of mouse clicking required in order to navigate the content can diminish the immersive experience. The computer keyboard in this example is the interface, what I perceive as the "seam" between the content and viewer. Indeed, in my estimation, the interface is, in most interactive media objects, the weakest link. Very few interfaces overcome this limitation. Most act as a distancing element for the viewer, distracting them from the content. One of the reasons virtual reality struggles to succeed is due to the nature of the interface, the headgear and glove—cumbersome and almost comical devices—that persistently distract the user from any possible sense of immersion. The more obvious the seam, the more a viewer's sense of immersion will be compromised. Yet a completely seamless experience may leave the viewer unaware of their role in the manifestation of the content. Agency is lost without awareness of that role.

In constructing The Pearl, I sought to explore the viewer-performer relationship in terms of agency, and the role of individual imagination. This is

important to me because agency is a very elusive term, and to me is irrevocably bound with the power of human imagination. I considered the way an event described in a book, then imagined by the reader, can significantly differ in impact from the same event depicted cinematically. Textual interaction relies upon the reader's imagination to provide imagery of the event. Cinematic interaction provides a completely constructed version of events. The imagination's ability to customize the perception of events is an individual, unique phenomenon that potentially holds more power than a primarily illustrative, self-contained experience. Interactivity is an illusion and agency is the perception of that illusion. Engaging the individual's imagination is key on the route to interactivity.

The desire to engage individual viewers' imaginations determined my decision to construct a monologue delivered directly to the viewer, with eye contact and a sense of the intimacy of a private conversation. Implicating the viewer directly promotes a more rapid investment of imagination, much the same as it is human nature to be most interested in anything concerned with self rather than other. I am more likely affected by someone talking directly to me than hearing two other people speak together. I felt that if a connection as direct as this could be made between the performer and the viewer it would help carry the sense of immersion forward, engaging the viewer's imagination and therefore emphasizing their unique experience, as well as helping divert attention away from the seam of the interface.

In The Pearl, I sought to employ commonplace, familiar and therefore less distracting objects as interface. This choice of interface was my single most belaboured point: I carefully considered the innumerable possibilities of interface and the implications of each. It was my observation that the use of a handset and keypad worked relatively well in not overtly distracting the viewer from the content. Handsets and keypads are universally recognizable. They are deeply familiar. Their use is largely second nature, and I sought to employ this familiarity as a way to mask the technology, to make the interactive experience more seamless.

So, in spite of the technological complexity of this piece, the viewer experiences it simply and intimately, alone with the handset and keypad and free to engage directly with the audio and visual. Viewers are afforded a critical sense of privacy, one which those not holding the handset cannot share. For the viewer, the visual interest of the images—the faces of the performers, the gestures and contortions—liken the work to a kind of animated painting, a video portrait.

I recognized an obvious choice to construct this installation within a small, intimate environment, in which the viewers entered one by one, and perhaps sat down. I discarded this construction as not addressing my full considerations of the various aspects of viewer engagement. Aesthetically and conceptually, I enjoyed the contrast of private material which appears public, yet which can only be accessed privately. In conjunction with this public/private tension is my choice of the lectern-like interface. The monologue content traverses much emotional terrain,

and at a particular point is substantially confrontational. I wanted the viewer to be standing, to be in a position that would allow for retreat. Sitting implies a certain level of comfort or safety. It is a more vulnerable position than standing; in a state of repose, one is generally not as ready to flee or engage in combat, be it verbal or physical. Because the content is, at points, very confrontational, I wanted the viewer to be able to have some sense of power in order to balance the confrontation. I wanted to give the viewer a physical position that most closely aligned with what I perceived would be their natural response. Furthermore, I recognized the connotation of lecterns with authority, and, as such, I wanted to imbue the viewer with a distinct sense of power, to temper the escalating onslaught of the monologue. This was done in an effort to establish and maintain a certain tension, opening up the opportunity for the viewer to become more emotionally engaged.

These physical considerations relate directly to the viewer's sense of immersion. It is distracting to sit in a position that does not feel appropriate to the situation. My ultimate choices of physical set-up for The Pearl relate to issues of safety and placement, content and access—I consciously chose to situate the work near the window and door in the gallery, so that the projection was enticingly visible from the street and from almost any vantage point within the gallery. Moreover, when the viewer steps up to the interface and faces the projection, their back is to the gallery door, yet they are visible from the street, framed, performing.

I wished to explore the viewer's sense of safety and authority, accessibility and intimacy. Thus, via handset and keypad, lectern and object placement, familiarity and confrontation, I endeavoured to both heighten the viewer's sense of immersion, as well as contribute to invoking and maintaining the tension inherent in The Pearl, ultimately pushing the boundary of interactive narrative away from the technological and physical experience, towards that of imagination.

Conclusion

Truly interactive narrative is far from full realization. Technology is not yet able to provide the kind of physically immersive plot response that is imagined by scientists, artists, and others. Virtual reality machines fail to truly engage, and holodecks remain conceptually fabulous fictions. Though there is clearly a progression underway, nascent versions of interactive narrative such as DVD and online gaming environments have a long way to go before their level of sophistication even begins to approach the depth of content and nuance found in traditional narrative forms. Those projects most impressive are those that rely primarily on the human factor, rather than the technical. Cardiff's walks are a beautiful example of this; technically simple, they rely on the invocation of the individual's imagination and senses to create a powerfully immersive work of art.

Authorial intent has had a long history in known formats, and the evolution of a form that positions the reader as a true co-author will not happen quickly or easily, or perhaps not at all. Intent is of critical concern in the creation of interactive narrative, for how can the author create a series of narrative variables that, regardless of how they are viewed, ultimately comprise the intended narrative goal? Logistically, how can an author tell a story without being able to control the events that unfold in its telling? Any worthy editor of time-based media knows well

that the ordering of events is critical in terms of implicit and subtle meanings, and it is certainly not by chance that film directors frequently negotiate right-of-control over final cut. The answer to this exploration, the very conundrum of interactive narrative authoring, is not simple: the writer, whether in terms of text, image, or other, is inexorably bound to the narrative voice. As renowned interactive cinema artist Grahame Weinbren observes:

> "By far the most difficult issue I've taken on has been that of developing a structure or shape for interactive narrative, a narrative architecture that requires a viewer explore it rather than experience it from a literal and/or metaphorical position. The question of who retains control comes up at every turn—it is possible that an artist might disagree with the overall sense of his own work."

A critical component of interactive narrative that has yet to be realized is structural—to find a narrative form that deemphasizes sequence. It is possible that this goal is essentially a paradox.

On a personal level, the research, development and production of The Pearl has greatly expanded my perception and understanding of interactive narrative. This is what I set out to do, and in that respect I feel I have succeeded. From a creative and aesthetic standpoint, I am satisfied with the project in terms of what has been possible within my existing perimeters. The Pearl holds an ongoing interest for me in the form of possible reconfigurations; I will explore other types of interfaces and triggering devices, experiment with other presentations of

exhibition. Have I located the "holy grail" of interactive narrative? No. But I had no delusions of achieving this. What I did learn is that I continue to believe in my artistic instincts, and that a key aspect in any interactive narrative—and in any work of art—is the engagement of the finest technology of all, the human imagination.

Appendix

Please refer to DVD entitled 'The Pearl: Exhibition Documentation' on inside back cover.

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