Hiding in a Hollow Tree

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Exegesis

Abstract

Starting with a broad analysis of game story-telling methods, this project seeks to interrogate a player's occupation and navigation of the possibility space of a game's meta-narrative and isolate 'story-telling' techniques specific and inherent to the computer-game medium. This leads to a series of formalized design schema, on the *meta-narrative – game-play* relationship, to assist computer-game design practice.

Contents

1. INTRODUCTION

1.1 What's in this Document?

This exegesis is split in to six sections.

The first section is an ***Introduction*** to the observed phenomena motivating the research and delineates the research areas and focus of the project. It also introduces the format of the exhibition project and discusses its relevance to the research.

Concept & Contexts provides a contextual grounding for the project by outlining relevant art, practices and seminal texts. This section will also elucidate the project's formed concepts and explain the artistic direction of the project.

Previous Works explains precedents referenced throughout the document.

Practical Component explains the practical methods employed for the final exhibition piece and discusses the installation aims. Finally this section provides a reading of the thesis project and briefly discusses further areas of research.

References, contains an exhaustive account of all games, texts, images and other media referenced throughout the exegesis.

The last section is an introduction to the ***Game Document*** for the designed game that the environment is designed against. It should be noted that a completed game document is beyond the scope of this project, what is given are sketched game details pertinent to the exhibition project.

1.2 Research Phenomena

Game narratives struggle to strike a chord between rigid linear stories and open ended narrative systems. I play a lot of games, I also read a lot about games, and I've noticed that, instinctively, the computer-game medium's strength is in the use of systems of emergence. These systems allow for, not only emergent play strategies, but also a dynamic possibility space of narrative.

What I have also noticed, however, is that besides the fact that I acknowledge the gaming medium as being 'good at' offering open-ended narrative systems, my favourite games have a very strict story-line. Furthermore, games that don't engage me with their main story-line fail to satisfy a desire for narrative structure.

Is this because we don't 'do' (integrate) open-ended narrative systems in games well enough? Are we not yet playing to the true strength of computer-game story telling techniques? Are there uncharted techniques that we can build on to improve the emotional and intellectual response to computer game narratives? Why do I find games to be so good at system orientated play and simulation, and yet I *personally* strive so hard to find a linear narrative during *actual* game-play?

1.3 Research Question

This research project looks closely at computer-game narratives and their relationship to emergent game systems.

> *How do players occupy the theoretical possibility space of multi-choice systems of embedded and emergent narratives, and how do they engage with these narratives, which rely on referents external to the game, from a perspective of player-experience?*
>
> *How can game-space designers craft meaningful computer-game narrative experiences?*

There is already an implicit distinction in these questions between the ***game-play experience***, and the act of ***game design***. As game designers we do not *directly* design player experiences, only the formal structures that contain the *possible* player experiences. This duality alludes to a deeper questioning of the relationship between the actual *game-play experience* and the *formal structure* and *contexts* of the game.

1.4 Project Description

THESIS PROJECT OVERVIEW

The thesis project involves sketching the outline of a game and then designing and building a part of that game.

The practical component of this thesis project is split up in to three parts,

1. The game document describing the designed computer-game, ***In Hiding***,
2. A playable portion of ***In Hiding***, ***Forty-Three***, altered for the installation context,
3. The installation, ***Hiding in a Hollow Tree.*** This installation is interactive and includes crafted animations.

The practical components explore several related themes which I name: *nostalgia*, *death* and *return*, and, explore them practically within a computer-game installation context, using them as a tool to test theories and explore ideas covered later in this exegesis.

THE DESIGNED GAME "IN HIDING"

The final section of the exegesis introduces a fictional game designed by myself for the purpose of the exhibition project.

This semi-complete game document was provided at the exhibition. This designed game, ***In Hiding***, informs the design of the playable portion.

THE PLAYABLE COMPUTER-GAME "FORTY-THREE"

Within the game document is a section on ***In Hiding***'s environment which describes the methods and concepts behind the design of the playable computer-game, ***Forty-Three***.

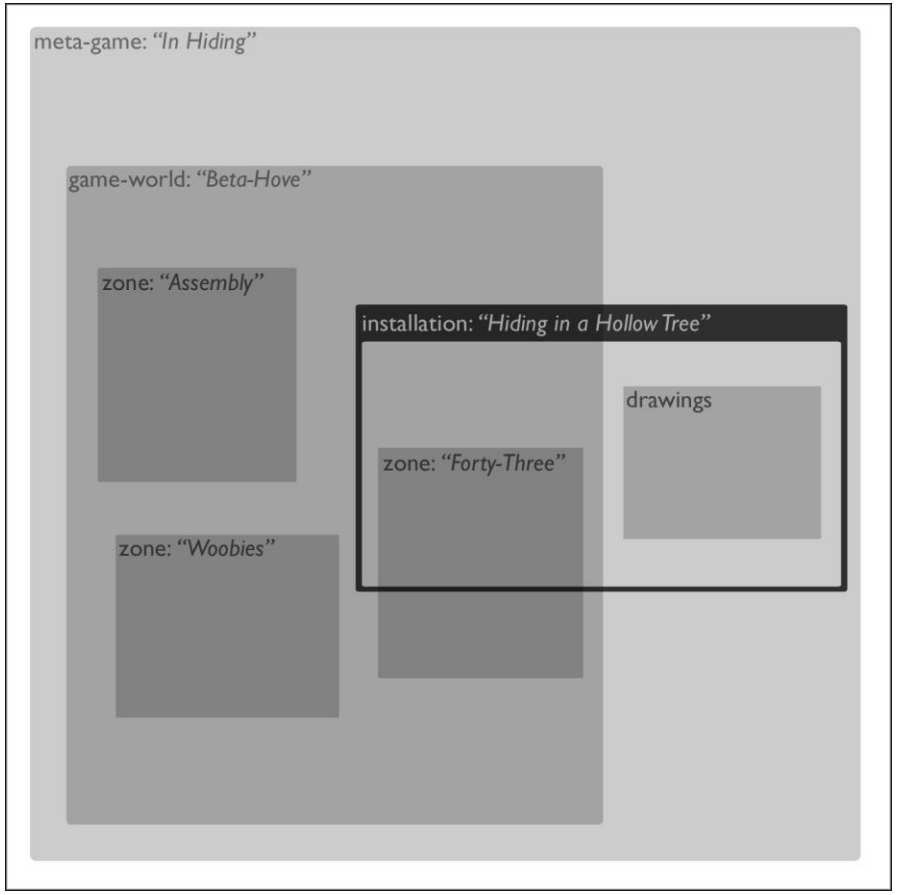


Figure 1, the relationship between the game world (with its zones) and the installation project

THE INSTALLATION "HIDING IN A HOLLOW TREE"

The purpose of the installation was to create an experience based on ***In Hiding*** that tests and explores some of the ideas covered in this exegesis.

The installation is formalized in to *three* components:

1. the playable computer-game (***Forty-Three***)
2. the physical hardware setup ('*arrangement'*)
3. the animations on the VHS tapes (*'drawings'*)

A Note on the Project Name

The name ***Hiding in a Hollow Tree*** comes from firstly a love of nature. Above all things I should not lose sight of what I appreciate most. Trees have always been a very important part of, and iconize moments of, my life, which leads to 'use of trees' in my work being a relatively intuitive decision explicitly denied over-analysis. Trees then become a natural way to abstract my work while maintaining an intuitive perspective on a pleasing icon.

There is a thing that tells me that "hiding in a hollow tree" is important – an important phrase – and like a premonition or prophetic dream I feel that someday it will explain itself to me.

1.5. Common Terms

Player-Character

The character controlled by the player, sometimes referred to as the '*avatar'.*

NPC

Non **P**layer **C**haracter: A game character controlled by the computer. Its behaviour is governed by game code referred to as *artificial intelligence* or *AI.*

RPG

Role **P**laying **G**ame: A game in which a player controls one, or a few, persistent characters, developing them over time. RPG games have a specific set of characteristics that aren't covered by this classification. Other game types that have these characteristics often refer to them as '*RPG elements',* but this does not imply that the game uses role play.

MMORPG

Massively **M**ultiplayer **O**nline **R**ole **P**laying **G**ame: A virtual space, occupied simultaneously by many players such as *World of Warcraft.* It is not uncommon for dozens to hundreds of players to occupy the same space during play.

FPS

First **P**erson **S**hooter Game: A game where the player controls a character as if they are looking out of the player character's eyes.

RTS

Real **T**ime **S**trategy Game: A game that requires the real-time management of many, sometimes dozens, of units by one player. Narratives of RTS games usually involve large scale warfare.

HUD

Heads-**U**p **D**isplay Interface: Animated graphics (and sounds) that communicate system information to the player via screen overlay or 'cock-pit' graphics. Typically displays system information difficult to discern from the game world, such as the players vitality.

PVP

Player **V**ersus **P**layer **C**ombat: When players engage in competitive play against other players as opposed to fighting AI opponents.

2. CONCEPT & CONTEXTS

> *Using other media as starting points, we may learn many things about the construction of fictive worlds…but relying too heavily on existing theories will make us forget what makes games* ***games****: Such as rules, goals, player activity…It is the unique parts that we need to study now.*
>
> - Jesper Juul, *Games Telling Stories?*

This project attempts to frame the use of narrative in computer-games from the perspective of computer-game experience and design. Worded differently, this project asks the computer-game medium "How do *you* like to tell stories." Not simply; "How have you *already* told stories?" But also "How would you *like* to tell stories?"

These questions are asked within the frameworks of: *emergent systems*, how players experience and assign *meaning* to the *symbols* within these systems and how these *meanings* can be used to construct *spatial experiences.*

2.1. Systems of Narrative Emergence

To start this questioning, it is necessary to assume that: *Games are inherently 'system-like'*, not just in the invisible formal rule structures, but also in experience. Players provide agency to a game's system, interpreting its feedback, and forming future strategies based on an assessment of the risks and resources that flow through the system. To analyse this assumption, the following narrative concepts are discussed within the framework of complex[1] interactive systems of emergence.

NARRATIVE PLAY

Being a comprehensive and broad introduction to game design theory, *Rules of Play*, has greatly influenced this project. Many references are a result of reading this book and as such it is introduced early.

Salen & Zimmerman (p378) state:

> *Because [the topic of narrative play]'s potential terrain is so large, we keep our investigation tightly focused. We do not ask, for example, "Are games stories?" or "How do we create better narratives?" These kinds of questions focus more generally on the nature of narrative itself...*

Continuing this line of thought, this project is an introduction to the study of *how* games are narrative, and is a platform for future study on the topic focusing on the medium's ability to produce narratives through game-play experience.

> ***A Note on Narratology vs. Ludology***
> Computer game theory (Løvlie, 2005) was for a while dominated by a debate between two approaches known as ludology and narratology.[2]
> Although there is some logic to the argument that games are not narrative and I certainly agree that games need to be analyzed as games and not simply as narrative texts, this project however is: Firstly aligned with Gonzalo Frasca's position (2003) that the narratology-ludology debate is rather artificial as, among other reasons, ludology does not exclude so-called "narratology". Secondly this project does not see the debate, which is problematic due to a plethora of misconceptions and miscommunications, as being necessarily helpful untoward game-design practice.

The player's experience of a computer-game's systems can produce *narrative play*, in which narrative arises from either: the repetitive performance of game-actions to enact a scripted event (like when fighting 'splicers' in *Bioshock* (2K Games, 2007) to find out what happened to *Atlas'* family); or from the performance of the game-actions themselves regardless of any associated pre ordained stories (like planting seeds in

[1] Systems come in four types: *fixed, periodic, complex* and *chaotic.* Complex systems are the most common.

[2] By most definitions, a narratologist is a scholar that either claims that games are closely connected to narrative and/or that they should be analyzed –at least in part– through narratology (Frasca, 2003). Ludology is most often defined, not by all, including Frasca, as the study of game structure (or game-play) as opposed to the study of games as narratives or games as a visual medium. However this project proposes that the terms are generally misunderstood and unnecessarily polarized.

FarmVille[3] (Zynga, 2009), or fighting a group of player-characters from an opposing faction in *World of Warcraft*[4] (Blizzard Entertainment, 2004).)

EMBEDDED NARRATIVES

Quest is a common term to gamers; it refers to a small task or set of tasks, sometimes accompanied by a narrative reward, that a game[5] gives to the player in order to keep the game 'moving'. The quest narrative, a preordained story designed by the game designer, is an example of what is called an *embedded-narrative.* The *embedded-narrative* is not the only way narratives are experienced during play and part of *my* quest is to investigate and analyze other forms of narrative game-play experiences and, more importantly, identify lessons designers can take from this analysis.

EMERGENT NARRATIVES

Terms such as *deviance*, *transformative-play*, *emergent-strategies* and *subversion* all refer to ways in which people explore the formal, rule-based, possibility-space of a game and, sometimes, play it in a way the designer did not initially expect.

None of these terms refer directly to the way in which players engage with the narrative of a game but I argue that they are linked. The fact that computer-games can so easily deal with complex systems of simulation has direct implications on how stories can, and are, told within computer-games. A system that encourages transformative play also encourages the emergence of unexpected stories. These are often called *emergent-narratives* (Salen & Zimmerman, 2004).

Emergent-narratives arise from not only *playing* the game, but also from reflecting on, or pre-empting, a play session or story within the game's 'world'.

> ***Example***
> A *Battle for Middle Earth II* (EA Games, 2006) player controls a dwarf army and has to repeatedly force back a computer-controlled opponent attacking the *Mines of Moria*[6]. Through game-play, an epic tale involving the mines' defence will eventually form. This tale is later recounted on an online forum in the form of a detailed story.

SYSTEM INTERCONNECTIVITY

One important factor of the system design for ***In Hiding*** is the interconnected-ness of the game-systems[7]. The game proposes a system of concurrent sub-systems, where the game actions affect multiple systems. That is, the actions that advance the player's progression in one system will have a minor, similar or opposing, effect within another of the game's systems. In this way the player not only feels more connected to the

[3] *FarmVille* is an open ended game where players can repeat a set of farming related tasks to create a farm. There is no linear embedded narrative.

[4] Ongoing rivalries and player made stories often arise from PvP combat in an online role playing game.

[5] Usually under the guise of a game character.

[6] A particular area of the fictive world of *Middle Earth* (in which J.R.R. Tolkien's stories all take place) which Battle for *Middle Earth II* uses as a game environment for real time strategy battle.

[7] A very good, but very long, example of this can be found in *Rules of Play*, p324.

mechanics of the world, but *emergent-narratives* are also more likely to occur as new inter-system relationships are discovered through play.[8] *System interconnectivity* also allows for reward schedules that encourage play.

STAGGERED REWARD SCHEDULES

A game with multiple systems will not only appeal to a wider variety of players, but also, multiple *concurrent* systems (mechanically inter-connected or not) allow players to manage the attainment of multiple goals. These systems can have *staggered reward schedules* (often on a *fixed reinforcement ratio*[9]) and while players are actively pursuing one reward, they might be unconsciously (via *system interconnectivity*), or intermittently (via brief conscious breaks from the current quest), pursuing another. Once a player has reached one goal, they might be near enough to another that they continue playing until that goal is *also* reached. However in pursuing the second goal, the first system is also, again either unconsciously or intermittently, advancing. If enough of these systems are in place, the player might find that when they have reached several goals, the first goal is near completion once again providing a seemingly un-ending supply of attainable rewards[10].

> ***Example***
> A good example of this is the way in which *World of Warcraft* staggers it's goals for things such as character level, honour, multiple faction reputation, multiple crafting skills, quest objectives, and so on. Cleverly these systems communicate the overlapping of objectives so that players are aware that actions will advance multiple quests. This gives a heightened sense of achievement and narrative connectivity, and increases the chance that the reward schedules will stagger in such a way that encourages players to continue playing for 'just that one more achievement before bed'. Some of these systems are on a *variable reinforcement ratio* allowing for even greater chance for in immediate reward.

In Hiding employs this approach, ordinarily applied to mechanical or cosmetic awards, within the framework of *embedded-narrative* systems, resulting in inter-connected, staggered and multi-thematic embedded-narrative reward-events.

[8] The actual testing of this technique is beyond the time allocated to this project and hence it will be defined in the game document, but not implemented in the installation.

[9] A *fixed reinforcement ratio* means that the reward will occur a set number of times that an action is performed, such as a player increasing one level when enough experience points have been accumulated (*Rules of Play*, p346).

[10] Player desire is highly subjective and arguments surrounding game addiction are beyond the scope of this project.

EXPERIENCED SYSTEMS

Up until this point, the assumption that games are inherently 'system-like' has not considered trends and developments in game design. So let's compare the systems of two 'action' games created almost two decades apart[11].

Games lacking interactive systems are often seen as 'feature-less'[12]. Compare the experience of *Another World* (Chahi, 1991) with *Street Fighter 4* (Ono & Ikeno, 2008)[13]. Although neither is perceived as a 'game requiring system-management', the former would be seen as having fewer 'features'. I argue that when a game boasts a 'feature' it is usually boasting an interactive system. Most gamers would not consider the latter, a fast paced 'beat-em-up' game, to require the management of systems,[14] but there are in fact two very sophisticated risk management systems operating at all times during play.

Example One – Revenge Meter

A player's *Revenge Meter* builds up 'power' when they are hit by their opponent. Once this meter is full, the player can use it to perform a powerful attack. If this meter is not used before the end of the round the 'power' already accumulated is lost and the meter will start again from zero at the start of the next round.

Example Two – Combo Meter

A player's *Combo Meter* accumulates 'power' when a player hits their opponent. This combo meter has three tiers and allows players to use it to perform a powerful move based on which tier it has reached, but performing the move will exhaust the meter.

In both cases the player must assess the risks involved in certain game actions such as: blocking a hit to collect more revenge power at the risk of approaching death, or 'saving' their *combo* meter power for a powerful attack foregoing intermittent opportunities to use a lower tiered power.

Figure 2, (left) Combo Meter and (right) Revenge Meter at full power.

Although these systems are not related exclusively to narrative, they are testament to three important factors of recent game design: firstly, the *intuitive* design tendency to integrate interactive systems to provide interesting game-play; secondly, the trend of newer games (possibly due to technological advancements) to incorporate increasing amounts of interactive systems in to the play experience; and thirdly, and most relevantly, the subtle, almost invisible, ways in which systems can be experienced.

[11] 'Action' games being relatively disassociated with experienced systems.

[12] Based on a survey of game features listed on websites and boxes.

[13] I do not claim inferiority of either game. I am merely commenting on the common misconception of systems requiring player agency being read as 'features'. Of course there are some 'features', such as new rendering or sound capabilities that would not fall in to the category of interactive systems.

[14] Which would have been an accurate analysis of its earliest predecessors.

The natural 'feel' of the experience of the two 'power' systems of *Street Fighter IV* is made possible due to a number of influences external to the 'game'[15]. To discuss them all is beyond the scope of this document, but for a moment let's take a closer look at the *revenge-meter* with respect to player experience. Mechanically the *revenge-meter* operates as a *negative feedback loop*[16] closing the gap between the 'winning' player and the 'losing' player[17] thusly controlling and varying the fight's narratives to mirror scenarios specific to 'fighting films'. I am referring to the 'come-back'.

To receive a punch, a violent act that arises from acrimonious or honourable conflict between fighters, results in a narrative counter-emotion – vengeance. Within the boundaries of the game you are 'fighting' and anyone who has seen a Jean Claude Van Damme movie will know, that it is always possible to win a 'losing' fight at the last moment when the outcome seems most dire. The *revenge-meter* system is, among other things, a vehicle for this particular narrative, and it relies on the pre-existence of the *come-back* scenario[18].

The emergence of narrative from a computer-game's interactive systems is made possible by the use of signification. That is, without *meaning*, the symbols within these systems, regardless of complexity, cannot communicate narrative identity and game designers need to know where these meanings come from.

[15] Such as: popular culture referents, trends of inter-media narrative descriptors and changes in the cognitive responsiveness of the game's targeted players.

[16] A *negative feedback loop* attempts to stabilize a system. In gaming terms this equates to opponents being more likely to draw or win an equal number of times in the long run. *Negative feedback loops* are used in many games to 'equalize' opponents but *usually* at the cost of extended play time.

[17] Neither player has won or lost yet, but a player with significantly less health than the other is *usually* considered to be 'losing'.

[18] Which, although I use it as an example, I do not claim to be exclusive to Jean Claude Van Damme films, nor films in general.

2.2. Narrative, Symbol & Meaning

Games do not exist in cultural isolation, and the semiotic analysis of a computer-game's complete set of referents is vital to the creation of narrative experience and thusly the following concepts are framed from a point of view of semiotic analysis of computer-games.

NARRATIVE DESCRIPTORS

Narrative descriptors are representation, which means they are depictions of one or more aspects of the game world (Rules of Play, p.399). They are found both during game-play (e.g. in-game musical soundtrack) or external to the game-play experience (e.g. game manual text describing an experience of the game) but all external *narrative descriptors* are carried in to the play experience via the player's expectations.

> ***Examples***
> Game manual text explaining an experience or back-story of a part of the game, painted *box art* depicting an event of a game-world scenario, game advertisement posters showing a character's tattoos, pre-rendered cut sequences showing part of the game-lore, novels written in the game-universe, in-game musical pieces… all of these things communicate the games narrative identity.

Figure 3, Diablo 2 game character on website (left) and in-game (right). (Blizzard Entertainment, 2000).

THE MAGIC CIRCLE

To play is to remove yourself from 'real-life': "I didn't really bite you. I'm just playing." To play a *game* is to subscribe not only to the act of play, already distinct from 'real-life', but also to subscribe to the meanings, rules and culture of the game. The invisible boundary encapsulating the game's formal structures and conventions, of which the player subscribes to, is called the *magic circle*. People are crossing the *magic circle* all the time in both directions, carrying their behavioural assumptions and attitudes with them (Castranova, 2005).

The term *magic circle* refers more to the formal rules of a game than it does the framing of its symbols' meanings, but as with the relationship between a system's mechanics and the way it communicates narrative, this project argues that thorough demarcation of a game's *magic circle* assists

in the control of the relationship between the game and its external *narrative descriptors*.

META-COMMUNICATION & PLAY

Play not only grants distinctive meanings to actions, but also communicates an attitude toward those actions (Bateson, 1972)

> *Two dogs are playing: one dog chases the other, catches up to it, and nips it on the neck…The playful nip connotes a bite: it means, "Aha! I pursued you, caught up to you, and bit you!" At the same time, the nip connotes the opposite… "I didn't really bite you. I'm just playing.* (Salen & Zimmerman, 2004)

Conversely, to score a point against a *Street Fighter IV* opponent is to communicate to a player that you're not just playing you're also *fighting*. In one *meta-communicative* play-gesture, you have communicated not only an action, but also the *ways* in which your actions should, or can, be framed.

Narrative descriptors, *within* the game, have their own *meta-communicative* qualities also, as they imply a representational logic that limits and constrains the design of the space of possibility (Rules of Play, p.403). That is: The style of a set of symbols implies not only their meanings, but also *how* meanings are expected to be assigned or extracted.

Example:
The symbols within *Super Mario Brothers* inform the player that they will not encounter any photo-realistically rendered plumbing, but that a giant green pipe is something that they *can* expect to see.
Furthermore: based on relative scale, colour and movement, 'giant green pipes' communicate a degree of narrative (and mechanical) importance.

Figure 4, Super Mario Bros.

NARRATIVE SPACE

Game environments create narrative by the *meta-communication* of spatial elements. The type of space a player initially encounters, in *any* game, set's the initial mechanical terms for the game-play experience. For example, in *Go*, play takes place on a finite grid and actions are constrained to the intersection of grid lines. This mechanical introduction to the game helps players understand the type of actions they will be performing, but in some games, like *StarCraft* (Blizzard Entertainment, 1998), the space not only explains *what* the player will be doing, but *why* and *how*. That is, game environments suggest the initial terms of narrative.

Examples: StarCraft

With its birds-eye view, mechanically, players can assume that they will be semi-omnisciently navigating units over terrain but the particular scale of the battle field, visible from their mini-map, suggests the movement and attack range, and therefore narrative characteristics, of the game's units.

Also the amount of terrain visible from the player's perspective suggests the size limit of the armies they will be controlling at any given time. This pragmatic delineation translates to a narrative descriptor within the first few seconds of play: "I had a huge army!" could mean that the army was fifty units strong, but not five-thousand.

Small obstacles, known as *doodads,* foreshadow the narrative of the mission. Besides being impassable, these serve no significant mechanical purpose. An old destroyed building may suggest a war torn history of the area. A strange pit-like monster might allude to the hardened behavioural attitudes of the world's inhabitants towards adverse situations.

Figure 5, StarCraft battle field 'doodads'.

SIMULATION

Lotus Esprit Turbo Challenge (Gremlin Graphics, 1990) is clearly a racing game, but this clarity comes not from an accurate simulation of all the subtle nuances of racing, but from in-game signifiers that represent familiar external referents. It's obvious that you are racing, there will be a winner. It is also obvious that you are not supposed to drive off the road for, even *if* the game code allowed you to, this action would have no meaning within the possible narratives of the 'race'[19].

Figure 6, the red and white lines in Lotus Esprit Turbo Challenge signify the narrative boundary of the play-experience.

IMMERSION

Gary Fine (1983) identifies three levels of meaning in which game-play experience takes place: As people (I'm going to play *Super Mario Brothers* after dinner), as players (I am playing *Super Mario Brothers*), as characters (I am *Mario*).

Note on Player Consciousness

My dissatisfaction with the un-unified explanation of the transient inhabitation of these three levels of engagement is beyond the scope of this exegesis.

Hiding in a Hollow Tree exploits a player's variable-level of engagement with their pre-existing expectations of the installation space itself, as the spaces viewed in the *drawings* are *re*-presented to the player in game-environment form. This allows players to decide the depth to which they immerse themselves in to the game's imaginary world.

[19] Although this opens a debate about the code suggesting narrative expectations. "If I *can* go there – I'm *supposed* to."

Figure 7, Scene from Spirited Away (Miyazaki, 2001) represented in process work (Kenobi, 2007).

META-NARRATIVE[20]

World of Warcraft is an MMORPG set in the already well known universe of the *Warcraft* game series, *Azeroth*[21]. Espen Aarseth (2008) states that the entire world of *Azeroth*, experienced by playing *World of Warcraft*, is not the same *Azeroth* from the previous games in the *Warcraft* series, but rather a simplified 'virtual theme-park' of it. This technique is, as Aarseth puts it, made possible by the fact that, via previously made *narrative descriptors* (such as novels and previous games), the world already exists.

Until now the project has framed *meta-narrative* elements in terms of *theme, idea* or *external referents.* The game's *meta-narrative* is the overarching general ideas behind the game's themes and stories, excluding specific 'blow-by-blow' actions, while still encompassing the possibility space of these actions.

But in the case above, the *narrative descriptors* do not simply demarcate the boundary of the *meta-narrative* they also open up expectations of a wider narrative possibility space existing ***between*** the *Existing Azeroth* and the *World of Warcraft Azeroth.* The supporting lore of the *Existing Azeroth* (books, animations, etc…), provides expectations of the narrative of the game but the 'theme-park-like' depiction of the world in the computer-game allows the player some freedom in the amount of perceived connectivity to the *Existing Azeroth* (the depth in which they engage with the world's narrative). Some players may play-fight, visit, or explore the *World of Warcraft Azeroth* ignoring everything about the fictional world of the same name, whereas others might place narrative significance to their actions within the lore of the *Existing Azeroth*, allowing the two worlds to affect each other (Aarseth, 2008). Players can expect to see things beyond the *meta-narrative* of the *Existing Azeroth* because they are not *in* it, giving the designers more freedom within in-game narratives.

The *differences* between the two existing worlds communicate as much a part of the possibility space of the *meta-narrative* as the two worlds themselves and this suggestive *meta-narrative* technique is integral to the installation project.

[20] The word *metanarrative* is used in many disciplines in different ways. A full explanation of its meaning in the context of game design is not given here but it should become clearer towards the end of this document.

[21] Predominantly, although areas outside of *Azeroth* exist both in *World of Warcraft* and in the supporting fiction.

Also, although designers do not have full control over the *meta-narrative*, they do have *some*, and the installation carefully considers this game-play experience/*meta-narrative* relationship.

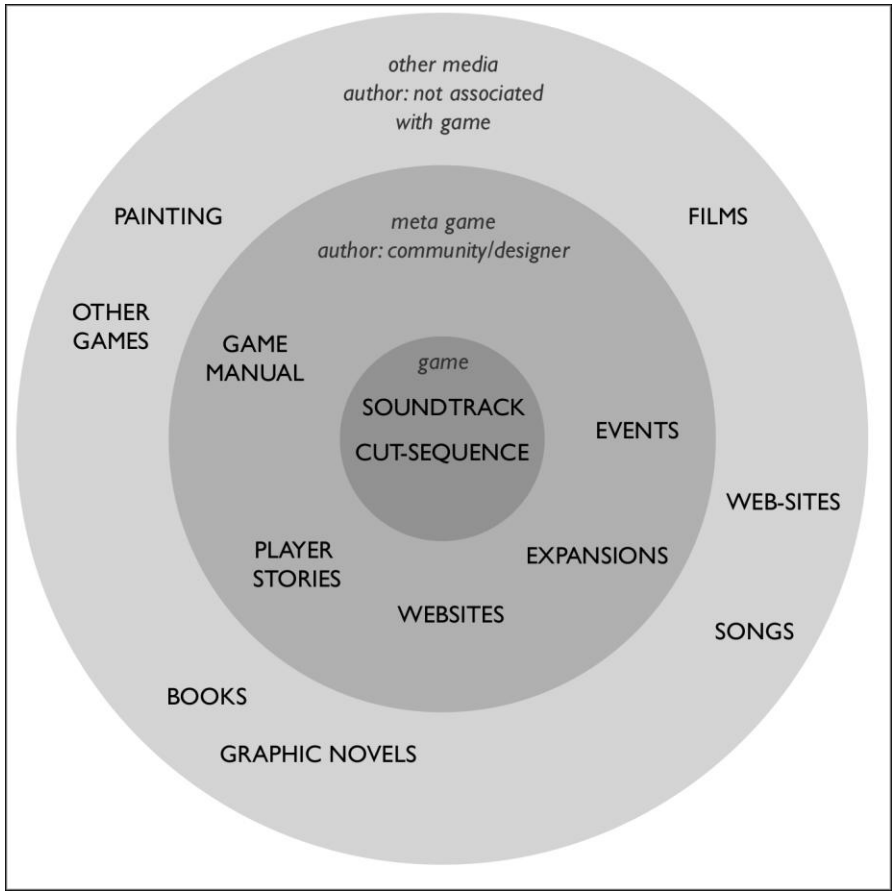


Figure 8, possible narrative descriptor sources that form the meta-narrative.

The *meta-narrative* can inform the pre-scripted story events (if the designer chooses) so too does it naturally inform the *emergent-narratives*.

This project proposes a synergistic approach to the use of *meta-narrative* by informing the game on a mechanical level. That is: The *meta-narrative* informs not only what happens *to* you but also what you *do*.

THEMATIC CORE MECHANICS

If a game's mechanical interactions reflect the *meta-narrative*, then the manner in which players arrive at the *embedded-narrative* descriptors will seem more natural.

> ***Good example***
> A quest in *World of Warcraft* asks player to 'convince' village members to run to the nearby *war-chief* and pledge to fight in an oncoming battle. Although mechanically this is a very un-interesting example of quest design, I argue that it is more successful than the quests often are. Besides giving the illusion of agency within the central narrative, this quest is effective because it gives meaning and significance to the act of talking to non-player characters making the actions relevant to the goal those actions help to attain.
>
> ***Bad example***
> The player character in *Prototype* (Activision, 2009) has the power to assimilate a person's memories by killing them. Players beat wandering NPCs, marked as important by the game, to death in order to extract story from them. However the player does not know who the NPC is until she is killed (extremely violently) which gives the act of assaulting them in the first place, no meaning.

Furthermore a *thematic core-mechanic* encourages *emergent-narratives* to arise from *transformative-play*. Such as in the game *Blob* where the mechanics of the game resembles the way a blob moves allowing players

to easily assign narrative meaning to the *core-mechanics*: ”Oh no! The blob got Daphne!”[22]

META-NARRATIVE & AESTHETIC

The *meta-narrative* should also inform the aesthetic of the environment, including sounds, lighting and props, as the tendency to forego informed aesthetic for photorealism wastes valuable resources on the attainment of a design aesthetic counter intuitive to the medium. The argument that *realism = immersion* I find to be fuelled by archaic analyses of games as a playgrounds for filmic language[23] and detrimental to creative process.

A Note on the Experience of Music in Computer Games

This project frames music as both in-game *narrative-descriptor*[24], and system feedback. This specific aspect warrants a deeper analysis but it is reserved for bibliography annotations (starting page 71, “*Computer game soundtrack”,* ending at page ***73,*** page 69) and the game document.

[22] Blob is a game played on an area about the size of two basketball courts where a player, representing the blob, must grab any of the other players on the court. The grabbed player then becomes a part of the blob and must remain in contact with the blob.

[23] Film tends to use photorealism often as it arises naturally from practical methods.

[24] And is often classified as being *part* of the environment.

CLOSURE

Creating games means playing with the realm of culture, but so too does it rely on psychological influences within the player that are beyond the current scope of this research project.

For brevity’s sake let’s bundle all of the concepts in this section relating to the player’s prior experience along with their current behavioural disposition, in to one whole psychological blueprint which helps them form an understanding of meaning, expectations and perception of experience.

In his book, *Understanding Comics*, Scott McLeod (1993) discusses the use of *closure* in mediums such as film and television and illustrates some of the ways comic artists exploit the reader’s ability to imagine situations in-between panels using this psychological blueprint.

Figure 9, Mcleod's examples of the ways in which comics use closure.

I’m interested in the stretching of these boundaries into the gutter space. What would you catch a glimpse of if those black lines around the panels were bent slightly? This literal example translates to a number of metaphorical approaches within the installation project.

Note

I have no interest in dissolving these boundaries, or the gutters, entirely as the strength of the project lies within what is not seen. I merely want to explore these boundaries and perhaps find new ways to exploit their power.

2.3. Spatial Experience & Narrative

As discussed in the introduction, designing play experiences is a problematic process: Game designers do not *directly* design player experiences, only the formal structures that contain the possibility space of these experiences. However, ultimately, crafting experiences is precisely what designers, *are* doing.

> ***Note on Designed Experience***
> Arguably all media suffers from this dilemma: Writers, painters and musicians don't create experiences, they manipulate language, pigment, sound. The Computer-game medium[25], being in a relatively infantile state, has yet to shed methods of other narrative media and deal with the dilemma from a perspective of player choice and system management. A musician learns early that a minor scale has a certain experiential quality to it; the computer-game medium is not so institutionalised and thusly effects of choices and experienced systems are not so easily pre-determined.
> Furthermore, the breadth of interpretations that emerge from recent computer-games is arguably much wider than commercial art in other media due to their systemic nature, further separating designer from experience.

The following concepts provide useful frameworks for the analysis of play-experience design. An understanding of these concepts may help to close the distance between the design of formal system structures and narrative play experience.

[25] At least the 'commercial industry'.

THE ANATOMY OF CHOICE

Games are systems experienced! What's more, games are being designed with an increasing number of integrated systems, and these systems are becoming more and more complex and inter-connected.

Complex systems of emergence require that objects repeat actions based on relational rules over and over. When these systems become 'interactive' they demand agency from players. The current state of a system provides a catalyst for player action, and once the action is performed the result is then communicated back to the player.

Using this analysis of interactive systems we see that systems are made up of internal communications ("Systems talking to themselves": relationships, processed actions and determined results) and external communications ("Systems talking to players": a demand for player agency and communication of the result). How systems communicate these two messages: "What *I* want from you" and "How you've changed *me*" affects the meaning of a game's narrative. That is: They affect the player's emotional responses.

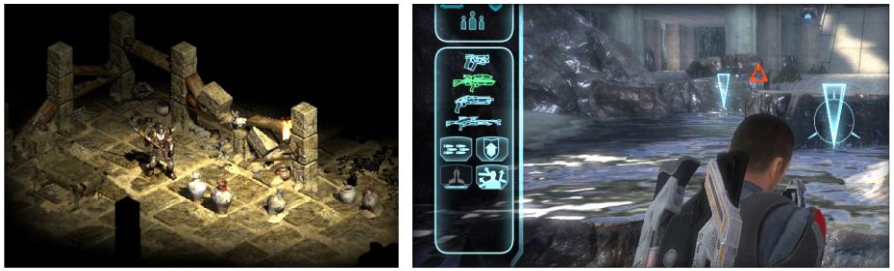


Figure 10, Diablo 2's light radius and Mass Effect's (Bioware, 2007) spatial HUD elements provide system feedback for both possible options and action results.

Our attention now turns to how computer-games communicate spatially to the player:

1. The possible actions to choose from.
2. The result of the chosen actions.[26]

MODELLING CHOICE

The fact that a model is a simplified version of a thing isn't solely due to resource pragmatism. Models are also simplified versions of things because that's how they become useful. A model focuses attention and confines interaction to a specific aspect or part of the thing. This isolation avoids obfuscation from the encroachment of insignificant ideas, which run the gamut from the overly broad, to the unnecessarily detailed[27].

In Hiding started as a proposal for a game which dealt with the idea of *sacrifice* in both narrative and aesthetic[28]. It also attempted to *model* 'trade-off' systems[29]. This started an interrogation in to the way in which choice effected emotion[30]. That is: The way in which game-action created *meaningful* narrative.

Specific choice types or responses to them can be isolated by removing the other types from the system altogether. But there are spatial approaches to isolating, or modelling, player choice.

ENACTMENT

> *The term [enactment] captures the idea that in a computer game, the player is more than just a spectator; but claiming that she is the author of her own experience seems like a gross exaggeration. Instead her situation can be compared to that of someone who is in a position between author and audience; an actor.*

This passage, by Anders Løvlie (2005), helps to define the concept of *enactment. Enactment* is the term given to the repetition of *core-mechanics* within the possibility space of an *embedded-narrative*. Although the use of this term in computer-game theory is still relatively contested, this project proposes enactment as an important concept vital to the understanding of meaningful narratives, as it addresses a way in which players occupy the narrative possibility-space of a game and elucidates the control the game designer has on the operational depth and specificity of the player or *player-character*'s actions.

[26] Examples on games communicating system information spatially are scarce.

[27] For example the *villain* archetype isolates villainous behaviour and polarizes the character so as to avoid contamination from other traits.

[28] Initially titled, *Hunter*. The *Gorge* project (p.29) was a small test of this proposal.

[29] E.g. 1. Improvements to player character skills always had a negative effect on other attributes. 2. Foregoing an ability altogether allowed for strength in other areas. 3. Game choices had an equal and opposite reaction. …And so on.

[30] Kenobi, B., (2007), *Killing Speedy: Setting the Stage for an Emotional Response*, Un-published article: AUT University, Auckland.

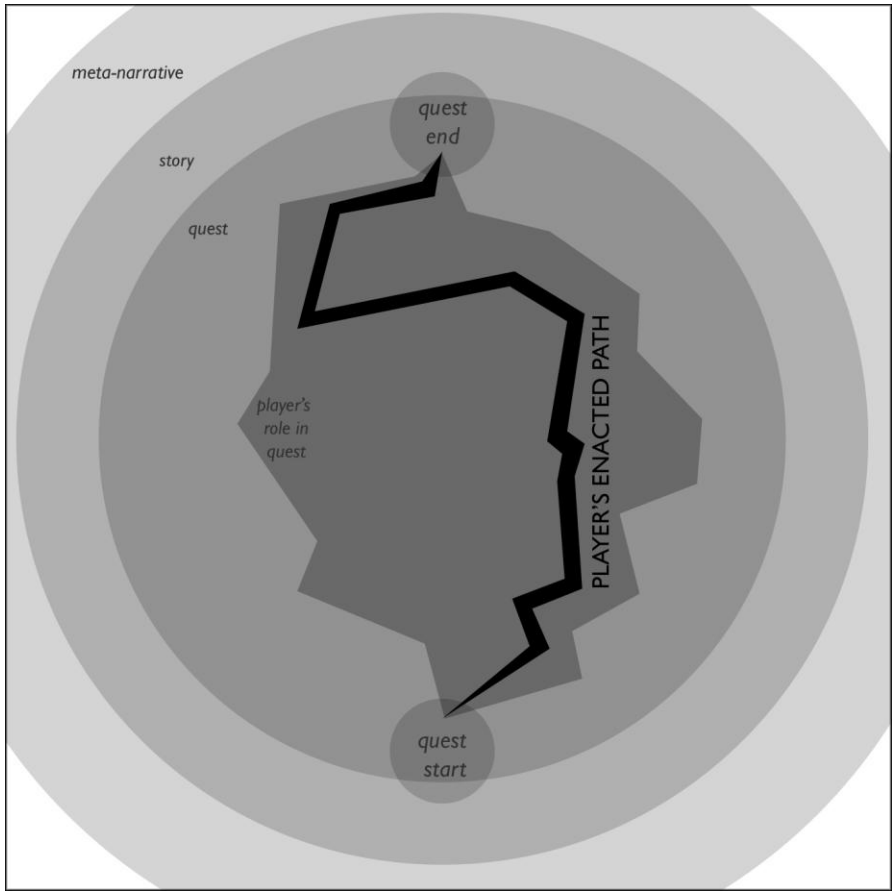


Figure 11, enactment of embedded narratives.

If the player's operational role in the quest isolates actions that cause appropriate emotional responses, the quest experience becomes relevant to game's *meta-narrative*. This can translate directly to the occupation of virtual space.

RESTRICTION ON PLAYER MOVEMENT

Restricting players' spatial freedom addresses many practical design issues but it also regulates narrative specificity and pacing.

A game with too much in-game freedom might risk a dilution of the main narratives and ideas. In this way a game system can serve as a model that isolates specific narrative descriptors.

> ***Example***
> *Riven* is an extremely good example of this. Player movement is basically confined to nodes on a path (otherwise known as a 'rail' or 'track'), and players can only view the world from a few select angles at each node. Although this mechanic would be frustrating in some games, *Riven* focuses on a rich narrative experience and each angle provides a plethora of *narrative-descriptors*.

Figure 12, each screen in Riven (Broderbund, 1997) is saturated with narrative descriptors which in turn give clues to solving the puzzles and uncovering the story.

A game without enough freedom inhibits the game's mechanical ability to be a *game*.

PLAYER DESIRE

A player in *World of Warcraft* is able to travel to previously visited destinations via what is called *flight-paths.* Flying beasts (or machines) carry the player along paths pre-determined by the designers[31]. These paths are not straight, but rather undulating, twisting and 'snake-like'. Cleverly this allows players to see new zones, and although the exact height fluctuates, the player maintains an enticing translational relationship with the areas below. "These are not areas entirely out of reach, these areas are part of the world *you* occupy."

Figure 13, a flying dragon, an example of the pre-defined flight paths in World of Warcraft.

This 'snake-like' *flight-path* gives a player a brief glimpse of new areas, alluring the player to explore further and heightening connectivity with the world as *other* players can be seen occupying these spaces. Furthermore these over-head encounters with other players communicate mechanical expectations of these spaces as they watch the other player below interact with the environment.

The restriction on the player movement isolates the player's role as 'student' and 'spectator', forcing them to learn and yearn.

Restricting player action is not reserved for the restriction of spatial movement. A game can also prescribe the operational depth with which players engage with it.

FEEDBACK

The game *Bioshock* was set in an alternative 1960's in an under-water dystopia, named *Rapture*, constructed in the mid 1940's. As with most of the items and structures in *Rapture*[32], the guns, were custom made by private artisans for *Rapture's* inhabitants. As time passed, the social dynamic in *Rapture* became unstable and as the inhabitants became more unruly the existing technology was subjected to makeshift augmentation.

I know this, because the game told me. Not through use of words, but rather by more subtle descriptors.

As the player, you find, collect and use guns. As you advance you gain the ability to use machines constructed by the *Rapture's* fictional inhabitants to upgrade these guns. The aesthetic of the weapons in both an un-altered and upgraded state reflects the aforementioned narrative premise. Initially the guns are as much ornament or fashion accessory as they are weapon, and these augmentations (which signify rule based 'upgrades') reflect the art deco aesthetic also, but with a specific 'citizen tech' twist.

[31] Players cannot control direction or speed and cannot dismount until they reach their destination.

[32] *Rapture*, constructed somewhere in the mid-Atlantic ocean, was initially intended to be a laissez-faire state disassociated with any external political, economic and religious agendas.

Figure 14, the shotgun in BioShock (left) and once upgraded (right).

This feedback system is effective for two reasons. Firstly: By using props within the virtual space you're able to learn a lot of information quickly and remain focused on the game world. That is: Your actions become *discernable*. Secondly: Using this method as opposed to words, numbers and HUD-display notifications, the feedback itself maintains narrative saturation providing a heightened connectivity to the game-world. That is: Your actions are *integrated.*

Discernable feedback and meaningful consequences (*integration*) directly affect the play experience by keeping players in a state of 'flow'[33] and when designed with a focus on the *meta-narrative*, they provide narrative cohesion and meaningful play.

ENTRAINMENT

Entrainment is the process of falling into a patterned activity (Moriarty, 1998). When players play games, they not only form patterned behaviours, but they use those patterns to learn new behaviours. A red button, if when pressed opens a secret door, not only trains the player that red buttons open door, but also that buttons do things. Naturally a logical rhythm forms from this process and players are able to act, not only upon these rhythms, but the interruptions of them.

Spatial rhythms and aesthetic patterns help players to arrive at play strategies intuitively.

> ***Example***
> *World of Warcraft* has many towns and cities all aligned with different factions and folk. Each folk have an architectural style. Two different human encampments will often have similarities in layout and quite often players will find places of interest (such as an anvil or stable master) intuitively. Within these town-planning rhythms are more rhythms. Two keeps will also have a similar layout, as will two inns. Submitting to the macro rhythms of town navigation allows players to naturally expect micro rhythms of interior navigation.

So the *entrainment* becomes not only a way to advance, but also a way to learn to advance.

NARRATIVE CONTEXT

When in-game signifiers are designed in response to narrative context, *emergent representations* help players form intuitive strategies.

Chests in *Diablo II* are found in random places all over the game-world. 'Opening' a chest will trigger a brief opening animation, complete with creaking sound, and objects will somersault in to the air landing swiftly on the ground with a sound befitting their tactile characteristics.

[33] Although a thorough discussion of *Flow Theory* is beyond the scope of this project, the four pre-requisites of *flow* are: Clear feedback (discernable), Challenge, Clear Goals, Control of uncertainty (integration). Although flow is not specific to games it is useful for creating meaningful play.

Here the game has just given the player a "rule" about how chests work. "Opening chests = random items."[34]

However if the player opens a chest and there's the brief mechanical crunching of gears, they will also find the chest to be 'boobie-trapped' in some way.

This meaning, assigned to the system by the player, and communicated to the player by the environment, falls within the context of the narrative giving it narrative meaning.

The structure of the exegesis so far forms a logic, a 'building' of a topic, a definitive area of computer-game theory that solidifies from the ordering of concepts.

In brief, this topic could read ***"Computer-Games as Spatial Systems of Narrative Emergence and Playgrounds for Enactment".*** This title covers all of the concepts discussed so far but it gives undue emphasis to the idea of *enactment*. "*How* games are narrative" is the question this project seeks to answer, and this question indeed covers *enactment*, but the project shifts towards a bias on the systemic nature of computer-games, which, although does not preclude *enactment*, does appear to favour emergence over narrative embedding.

The emphasis on *narrative emergence* ***over*** *embedded narratives* is apparent throughout the previous works.

[34] Chests can be empty.

3. PREVIOUS WORKS

This section explains the practical processes used throughout the entire research period and introduces precedents referenced in the final conclusions.

What follows is a brief explanation of some of the projects completed prior to the final installation. Irrelevant findings have been omitted but it is important to have at least a cursory understanding of these previous works as they are referenced in sections to follow.

GORGE

Relevant Concepts

The primary goal of the ***Gorge*** project was to create a portfolio piece that used forestry and artefacts unique to New Zealand in order to employ a specialized and pragmatic approach to game asset creation.

Forcing me to consider the community of the designed spaces[35], this approach remained an important focus through the entirety of the thesis project.

Gorge also provides an aesthetic template for the thesis project of which is explicitly denied over-analysis.

Furthermore this project was the first place the *trace* arose organically and upon reflection this project was thematically richer and more pertinent to my final project than I realised during its creation.

[35] In this case 'those familiar with New Zealand reserves'.

Method

Various photographic references were taken from natural reserves (primarily the Karangahake Gorge in Northland New Zealand).

Figure 15. Karangahake Gorge.

Traces of events from a written short story were designed to convey narrative themes to the 'player'. These small *traces* acted like ghosts of the character in the story, imprinting events on to the spaces and leading the player through the environment.

The event *traces* were then reconstructed in 3d immersive spaces using the *Half Life 2* engine.

*Figure 16. Screenshots from Project: **Gorge**.*

FISH-HEAD & ANOTHER FRIDGE

Relevant Concepts

The projects: ***Fish-Head*** and ***Another Fridge*** tested a*mplification through simplification*. This project was the first attempt at deeper exploration in to the psychology of game space experience and the *meta-narrative*.

Method

Popular scenes was chosen from both a film[36] and a game[37] to exploit the viewer's residual mental projection of the spaces.

Using a set of pre determined rules, the spaces were rigorously deconstructed and reconstructed in their simplest forms using iconic spatial elements[38], as easily recognizable reference points.

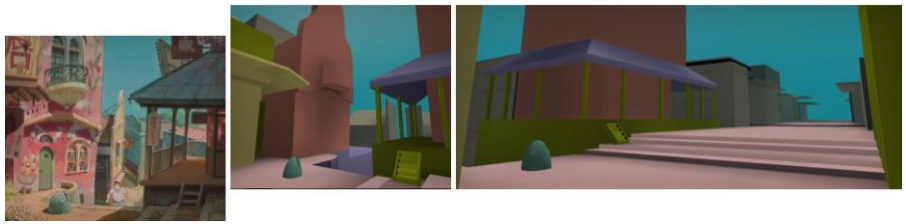


Figure 17. Scene from Spirited Away and screenshots from the game environment.

[36] Miyazaki's *Spirited Away* (2001).

[37] Chahi, E., *Another World* (1980),

[38] Such as the 'fish-head' sculpture in *Spirited Away* or the particle accelerator from *Another World.*

Figure 18. Screenshot from opening scene of Another World (1980)

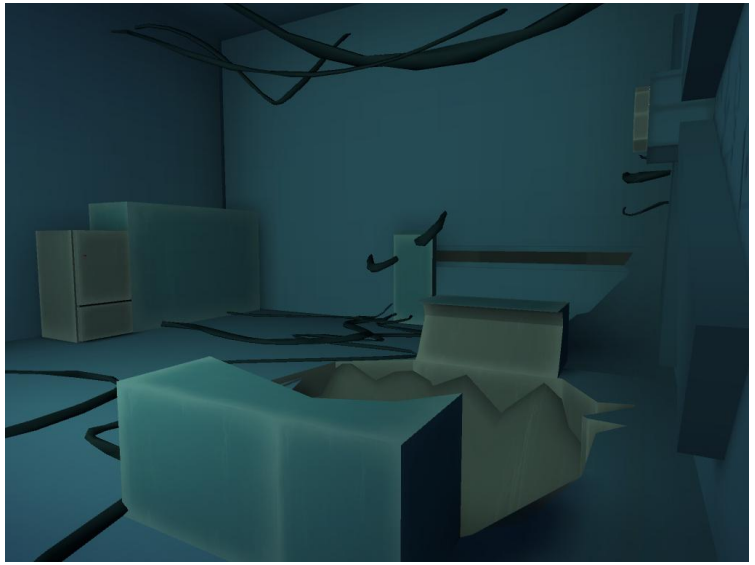


*Figure 19. Scene from project **Another Fridge***

CLOSER TO GOD

Relevant Concepts

Similar to the ***Fish-Head*** and ***Another Fridge*** projects, the primary concept behind ***Closer to God*** was the use of abstraction as a way of crafting *meta-narrative.* But this was my first earnest attempt to create player expectation by creating an exclusive game language.

Players were intended to feel like they knew the basic 'feel' to the environment based on ambiguous imagery, but never specific details.

Method

Using the *Half-Life 2* engine, an immersive environment was created that consisted of a seemingly endless plane of water on which the 'player' traversed. A constant mist covered the plane.

Figure 20. Screenshots from project: ***Closer to God****.*

As players slowly moved forwards they were presented with faint silhouettes of recognizable objects in the mist ahead. Confronted with ambiguity, players were encouraged to move closer to the object but as it gradually reveals itself it suddenly disappears as if the game is 'glitched'.

This method of signification was intended to craft a specific game language and the lessons learned were invaluable to the final installation.

WHIRLPOOL

Relevant Concepts

Designed to re-evaluate and re-shape the *magic circle* of a virtual game, ***Whirlpool*** was an exercise in *transformative social play.* Human controlled characters acted as 'street performers' within virtual online space, using the game context to transform social relationships and invoke a response in or outside of the game.

Method

Controlling a player character, or *toon,* I 'walked' in a cyclic pattern (Figure 21) around a heavily populated area of the *World of Warcraft* game world[39] for a final duration of 36 hours[40].

This performative gesture would be seen by hundreds of players every hour but no advertisement of any sort was given and no one particular response was desired from the experiment. That is to say I did not encourage players to participate in the experiment and allowed the repetition of the spatial gesture itself be a catalyst for player response.

[39] The name comes from the act of the Whirlpool which is a game sometimes played in a swimming pool.

[40] With 5 minute breaks every 1-5 hours. After 36 hours I became mentally unable to concentrate on the task.

Figure 21. ***Whirlpool*** *path.*

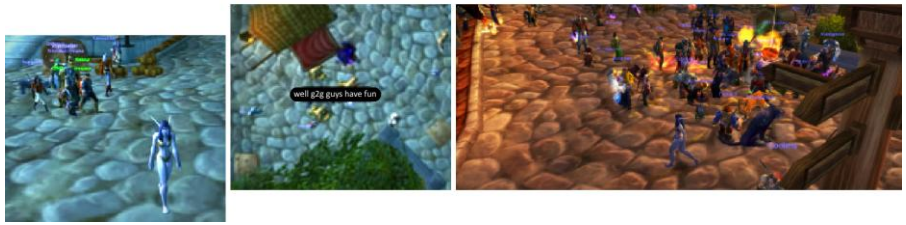


Figure 22. Screenshots from project: ***Whirlpool*** *taken in World of Warcraft.*

READING OF WORKS

The thesis project formed from ideas raised during small group discussion of these previous works making it what it is today. Ideas such as the *language of games*, the *community of space* and the *magic circle* first arose during reflection of these precedents.

A full critical reading of the relevant concepts from these precedents is incorporated in to the conclusion of the thesis project starting on page 53.

4. PRACTICAL COMPONENT

This section describes the practical component of this thesis project, an interactive installation, accounting for 75% of the Masters grade.

Firstly: the *aims*, *methods* and *outcomes* of the designed exhibition experience are discussed in relation to the contextual frameworks discussed throughout ***2. CONCEPT & CONTEXTS.***

This is followed by a critical reading of the thesis project in general, which *concludes* the body of the exegesis and briefly discusses future research.

4.1. Aims, Method & Outcomes

The purpose of the installation was to create an experience based on a designed computer-game that tests and explores some of the ideas covered in this exegesis, primarily: *meta-narrative*.

The computer-game is called ***In-Hiding,*** and the game's world is called ***Beta-Hove*** and is made up of several areas, or "zones" (Figure 23).

A partially completed zone, ***Forty-Three***, is available to play as a part of the installation. The rest of the installation, including the *drawings*, acts as a part of the *meta-game* and provides *narrative descriptors* that inform the player of ***Forty-Three***'s *meta-narrative.*

> ***Note on the use of the Term "Player"***
> Due to the game-like nature of the installation, this section describes viewers (exhibition goers) as *player* or *players*, regardless of their level of engagement with the work.

The installation is formalized in to *three* components:

4. the playable computer-game (***Forty-Three***)
5. the physical hardware setup (*'arrangement'*)
6. the animations on the VHS tapes (*'drawings'*)

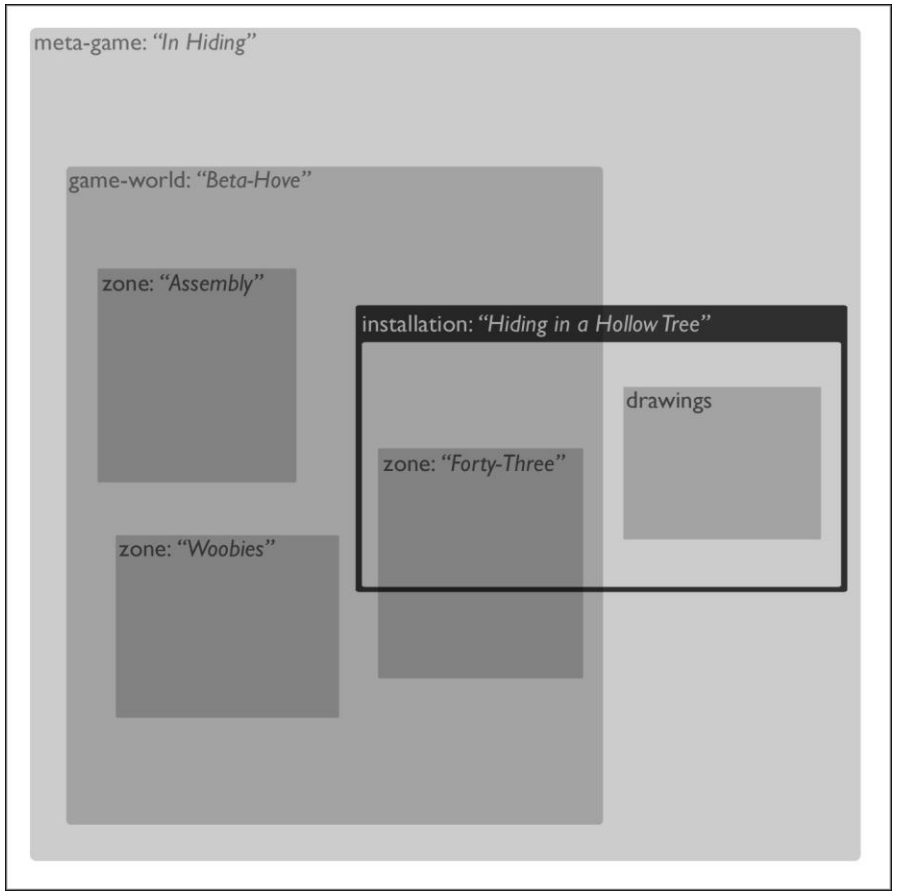
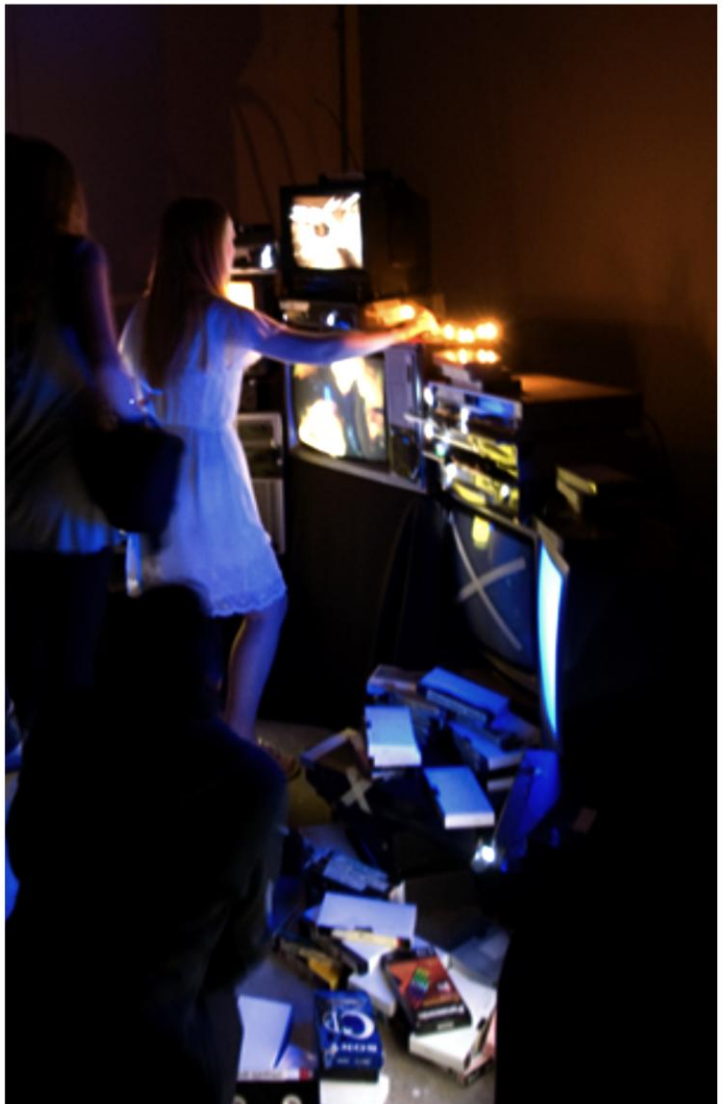


Figure 23. The computer-game world/meta-game/installation relationship.




PLAY

FORTY-THREE: THE PLAYABLE COMPUTER-GAME

To design the playable computer-game component of the installation, the 'kind' of game, at least in a general sense, that it is a part of, was chosen beforehand.

A more complete description of the game is given in ***GAME DOCUMENT***[41] (page 78) but what follows here is the basic outline of the game's aims and methods so as to assist in the critical reading.

The portion of the designed game (***In Hiding***) created for the installation is called ***Forty-Three*** and contains two immersive environments: ***The Memory Room*** and ***The Gutter Space***.

The game is designed to be read in several ways, saturated with signifiers and events so players can play it twice and get a different experience the second time.

As they are referenced throughout the installation description, it is important to first clarify some of ***Forty-Three***'s conceptual aims and *meta-communicative* devices

[41] The game itself is not entirely resolved and a complete documentation is not provided, however information that needs to be considered in the design of ***Forty-Three*** (key aesthetics, story ideas and core mechanics) are explained. As discussed in the primary research question, game designers design player experiences only indirectly through the direct designing of formal game structures, the time required to allow for the testing, analysis and adjustments of the game experience is beyond the scope of this research project.

Note on Overall Meta-Narrative

The *meta-narrative* for the entire ***In Hiding*** game covers themes such as *nostalgia, death* and *return* and is discussed in depth throughout the remainder of this document.

In ***Forty-Three,*** the player occupies a seemingly living world, somewhat un-aging[42] and constrained. The space is intended to be read slightly different by each player but there are several overlapping stories that inform the aesthetic and that all relate directly to the overall *meta-narrative* for ***In Hiding.***

The Memory Room

The digital 3d environment initially occupied by the player is named "***The Memory Room"*** and it is a part of the ***Forty-Three*** zone. ***The Memory Room*** is essentially a single room. This room symbolizes either the memory of itself, itself as observed from another spiritual plane (i.e. as seen by the dead), or a documentation of itself.

Tragedy

Some sort of lamentable tragedy befell the inhabitant(s) of ***The Memory Room*** space. The aesthetic suggests a fire, which itself can be read as a symbol of death or old-age. This motif carries throughout the entire installation.

[42] Time passes not in a linear manner, but, like in many games, when actions are performed.

The Spectre

I call the *player-character* "***The Spectre***", this is the player's avatar. ***The Spectre***'s role in the game world is to symbolize the embodiment of several possible ideas. One possible idea is that the player controls the aged inhabitant's imagination as it winds through the possibility space of memories. Another is that the player controls the spirit of the dead inhabitant either, also, exploring the memory, or occupying the space as an ethereal being viewing the mortal realm. Another is that the player is reviewing someone else's documentation of the space through the computer game interface. These are examples of the ways in which the game can be read, each one relates to the notion of *dying* (or the process of dying) and *returning* to the space in a somewhat *nostalgic* capacity and care was taken not to negate the validity of either narrative.

The Gutter Space

As players explore ***The Memory Room***'s digital environment, they find tapes scattered around the floor (not to be confused with the physical tapes scattered about the real-world floor, , page 53). These tapes can be picked up and inserted in to a stack of three VCR players in the corner of the virtual room. The VCRs appear to be connected to a TV screen displaying static interference and each VCR has a large green light on the side.

When the player inserts a tape they are rewarded with a loud 'ding' sound and one of the lights illuminates.

This is a puzzle. Once three lights are illuminated the puzzle either resets or, if the correct tapes are inserted, the player is transported in to what is known as ***The Gutter Space***.

This space gets its name from the *gutters* used in comics (p.19) and is an extension of the idea that games can use *closure* to craft *emergent narratives*.

The Gutter Space is ***The Memory Room*** but it isn't. This is a metaphorical 'bending' of the comic panel border line that suggests how the feeling of *nostalgia* works. Within this realm the player encounters an 'alien-like' anomaly (labelled on the physical tapes as the ***'Anomalous Intrusion'***) protruding from the floor. This 'alien-like' quality is the 'difference' between the experience of a space, and the experience of the *return* to a space.

> ***Example:***
> A childhood house, upon return, appears slightly different but still, in many ways[43], the same. In between experiencing the space as a child and returning to it as an adult, this 'alien' force changes the space just a little. The anomalous intrusion in to ***The Gutter Space*** is designed to give this same sense of 'weirdness' to the player[44].

Also within ***The Gutter Space*** furniture, décor and appliances have been moved and removed and the TV has been turned off. This lets the player know that they are in a way still in the same space, but that also they are not.

It should be noted however that the gutter space is also an 'Easter-egg' rewarding extended engagement with the installation.

---

[43] Maybe there is different wallpaper or a new crack in the paint.

[44] This is discussed more in the ***4.2. Conclusion*** under ***Return & The Hero's Journey*** (p.55)

Animations recorded to VHS act as supporting documents for the computer game *meta-narrative* and the term *drawing* comes from the way in which the installation was initially designed to be read almost as an architectural project; the *drawings* support and explain the model (in this case the digital environment).

> Reflection on the Term 'Drawings'
> Upon reflection it would have been better not to use this terminology as it does not assist in the explanation of the installation in-so-much as it obfuscates the function of the tapes, and it is in direct contradiction to one of the primary concerns of the thesis: that games need to be analysed as games. The name remains as a legacy convention to be analyzed.

The tapes were marked with six types of label:

1. '***Section***': Constructed images showing the ***Anomalous Intrusion*** (Figure 27) designed to suggest to the player that there was something odd or alien intruding in to the space thereby urging them to explore and investigate.

2. '***Texture***', 3. '***Lighting***': Offering a broad description of the texture, colour and lighting qualities of the space that would have been difficult to create using the *Source* engine. (Figure 28)

4. 'Interior' and 5. 'Detail': Establishing shots and close-up shots of interior elements of the spaces describing a level of detail and general ambience difficult to replicate using the *Source* engine. (Figure 29 & Figure 30)

6. 'Event': Photographs of significant moments occurring within the spaces (e.g. a birthday party) showing how the spaces were used and imposing an emotional and narrative significance to the spaces[45]. (Figure 31)

7. 'Exterior Elevations': Shots of the exterior of the spaces (not seen in ***Forty-Three***) to give an idea of surroundings and construction. (Figure 32)

The 'Drawing***s***' were constructed using a combination of physical and digital drawing, 3d modelling and photo manipulation techniques (Figure 33) and were designed to look effective on old televisions[46]. This meant that the work had to be constantly reviewed on the technology it was being presented on[47].

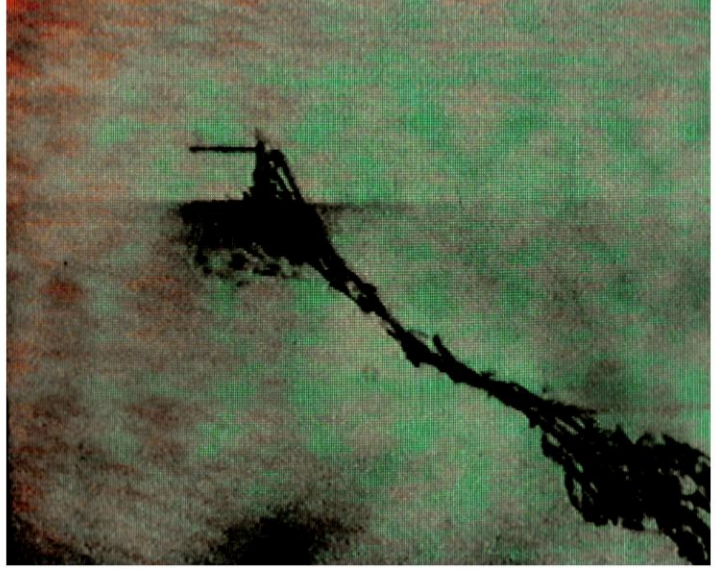
The burnt aesthetic of the images alludes to the tragedy and a VHS tracking effect[48] is used on the animation to symbolize decay (or *death*) reinforcing ***Forty-Three***'s *metanarrative* and giving the player a sense of hopelessness and sadness.

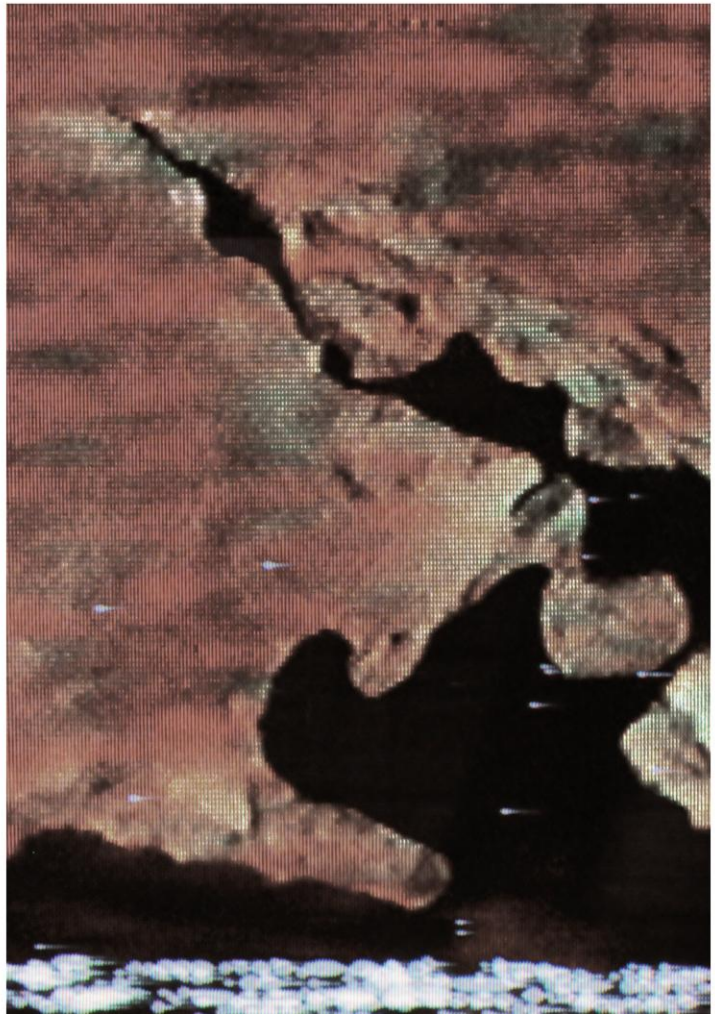
[45] Identities of people originally in the photos were hidden to allow players to project themselves in to the spaces.

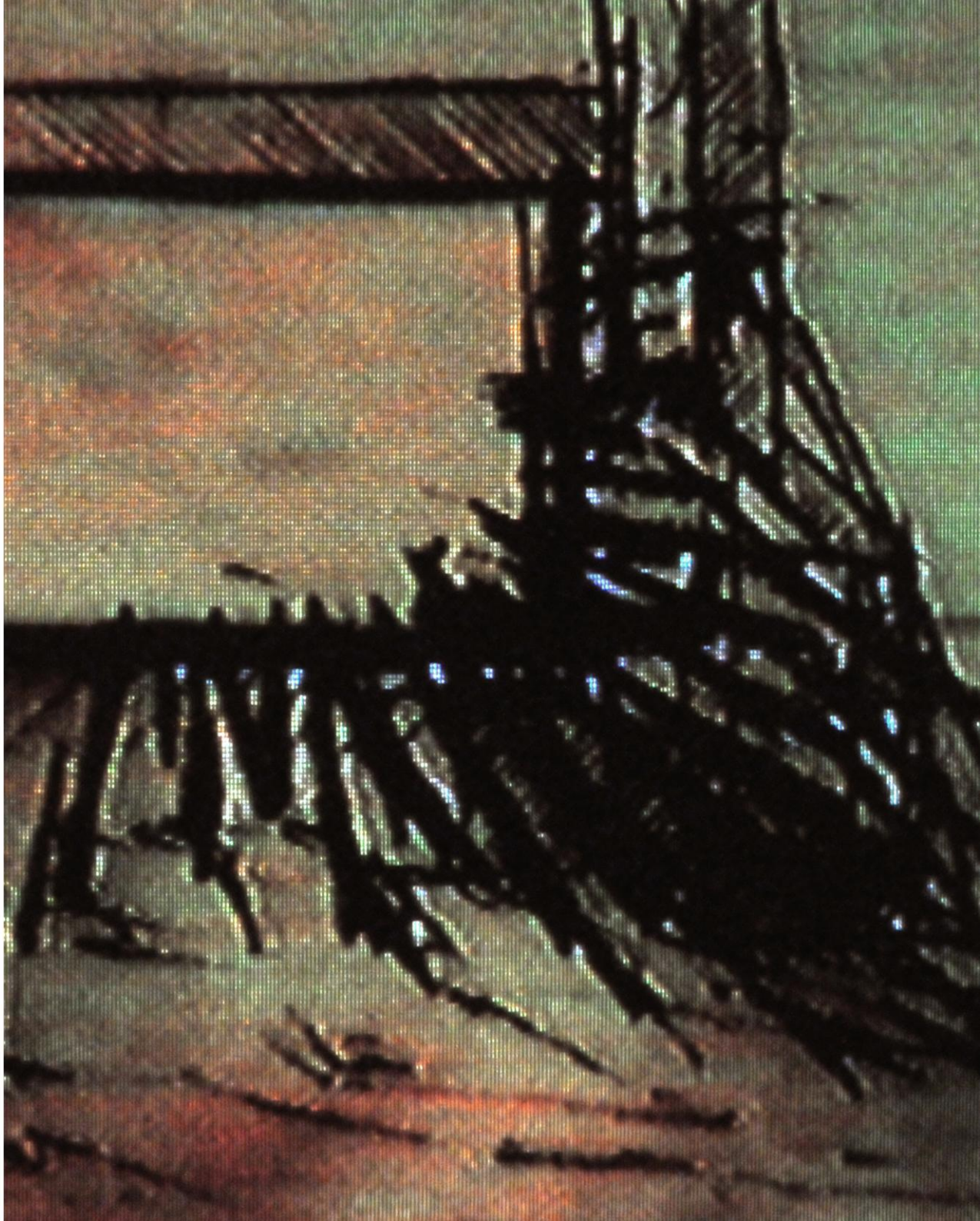
[46] Constructed images that looked effective on the computer screen did not look effective on the television and vice-versa.

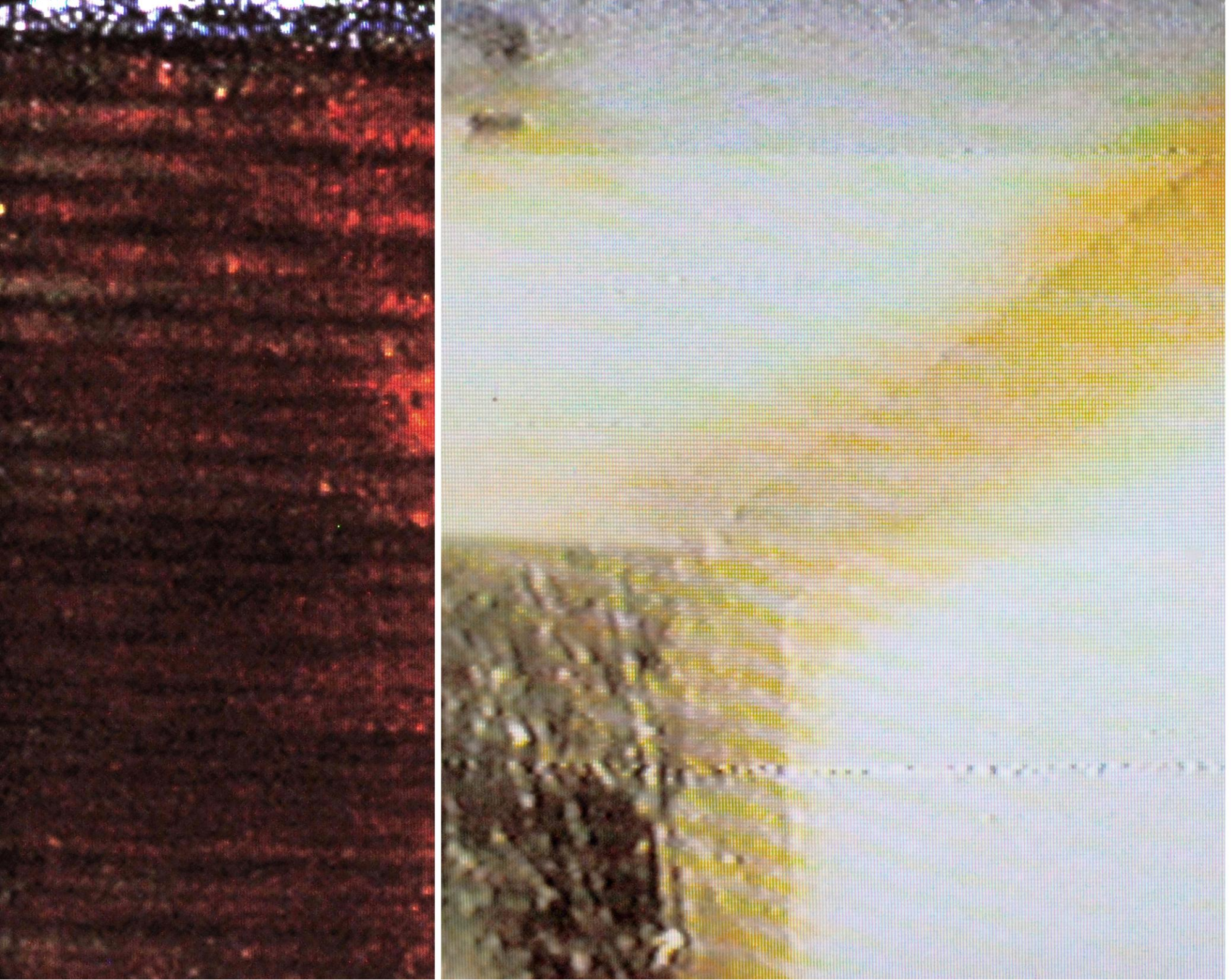
[47] This leads to an important point discussed in the ***4.2. Conclusion*** (p.54).

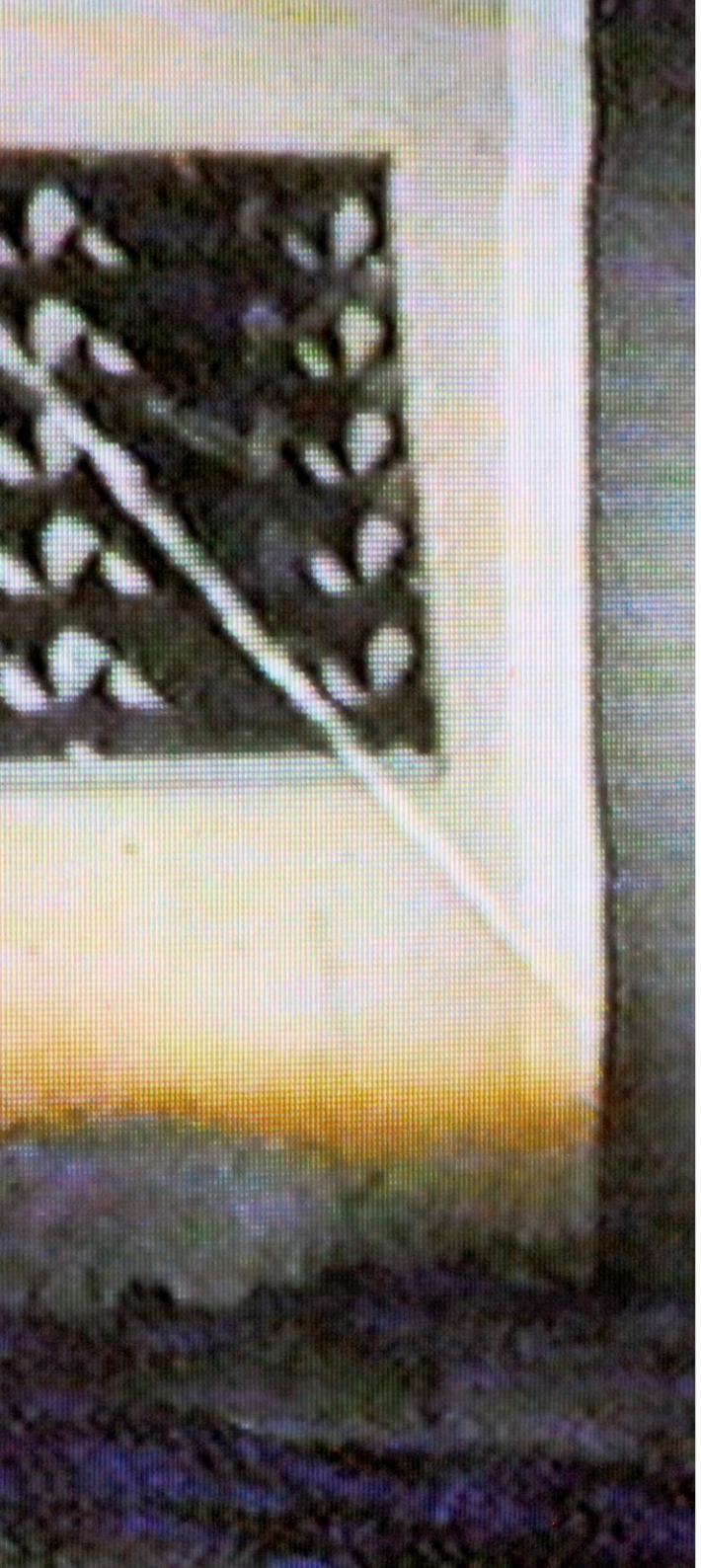
[48] The animations were recorded back and forth between tapes ('pingonged') over a period of weeks causing image degradation.

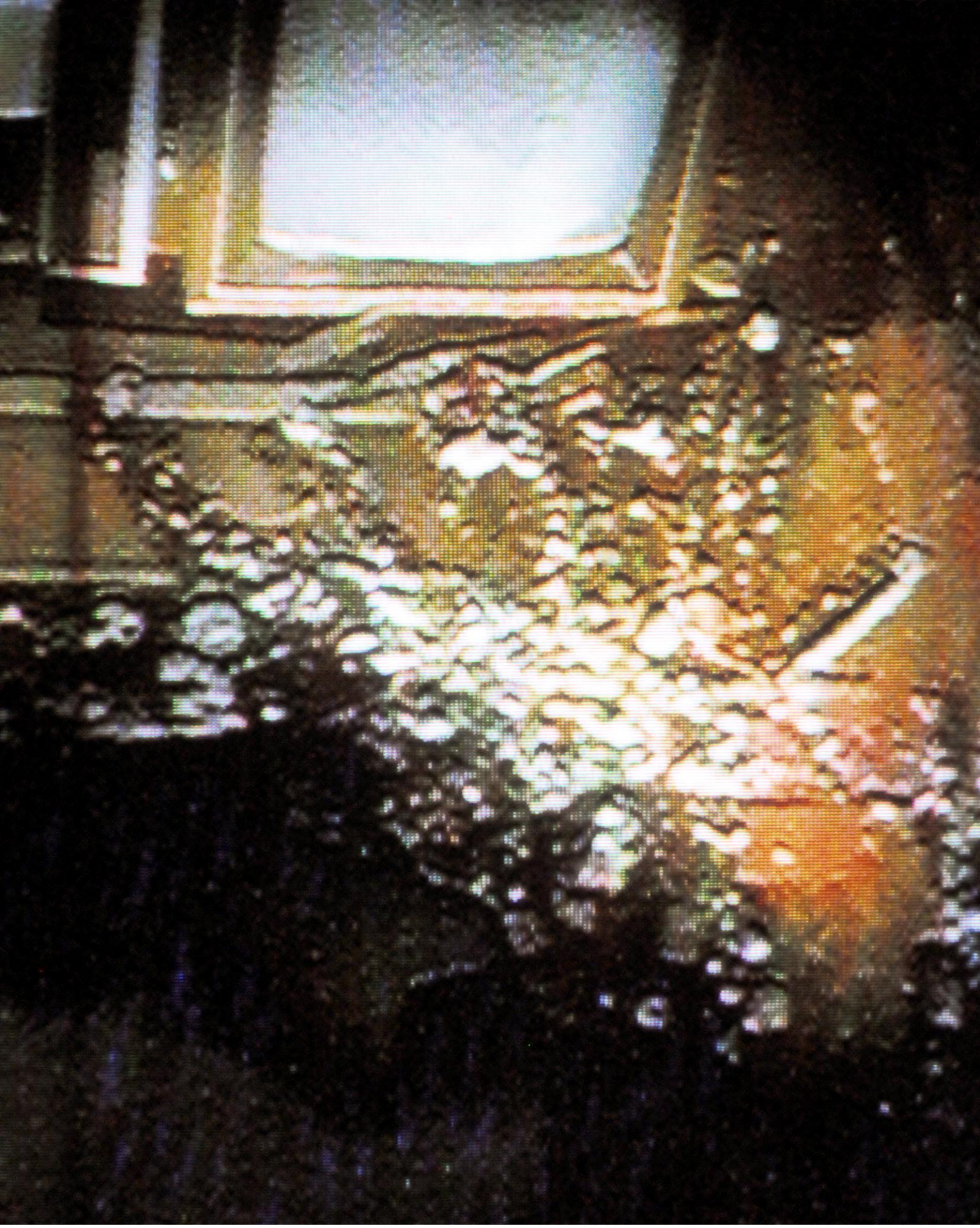












THE ARRANGEMENT & THE MAGIC CIRCLE

Televisions display the animations (*drawings*) which provide all of the ambient light inside the room. As players approach they notice VCR-players connected to the televisions with clearly marked play and eject buttons and VHS video tapes scattered about the installation. Players can then physically pick up and play the tapes. Although this is an exercise in 'play', this is not considered part of the computer-game's *magic circle*, however the animations do provide operational clues and *narrative descriptors* for the computer-game and are considered to be a part of the overall *meta-game*.

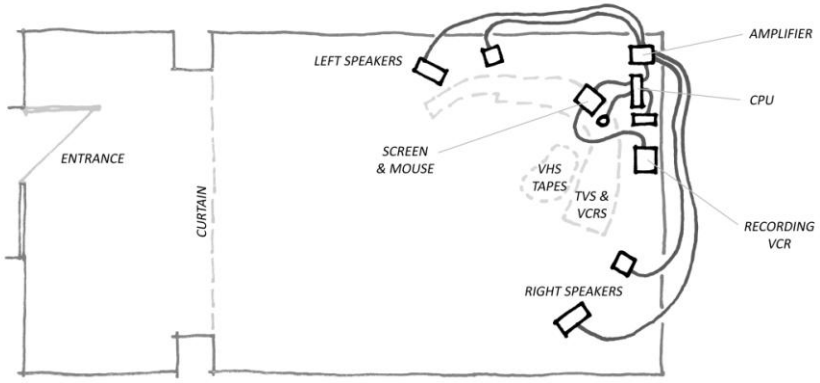


Figure 34. The completed installation arrangement.

Players engage with the installation in several ways. To clarify ***Forty-Three***'s *magic circle*, they are classified into three tiers of engagement:

1. The "*computer-game player"* provides agency to the computer-game component using the screen-and-mouse interface (Figure 35). The game gives visual feedback for the player's actions so they can discern narrative or operational significance from interactions. The computer-game experience is contained within the physical boundary of the screen and the mouse. This physical boundary is one way to describe the *magic circle* of the game. All that *is* the game is what the player encounters using the screen and the mouse.

Figure 35. The screen-and-mouse setup.

2. The *"meta-game player"* actively engages in the interactive component of the installation without playing the computer-game itself. These players are considered to be outside of ***Forty-Three***'s *magic circle* as they do not adhere to any of the games rules, but are clearly still observing *narrative descriptors* operating within the designed *meta-game*.

3. the *"passive viewer"*, although exposed to the *narrative descriptors*, does not interact directly with any part of the

installation but contributes to the experience by way of social interaction[45].

The installation is designed to encourage players to move through ***Forty-Three***'s *magic circle* as they graduate from passive to active participation. The speed of graduation varies significantly between players: some gravitate immediately to the mouse, some remain in a passive state whether viewing active players or not, and others may return after a second viewing having heard about the operational depth of the installation to investigate.

In this way the *magic circle* of the computer-game is often being crossed in one direction (passive to active). But the crossing is not one-way only, the active *computer-game player* may also move in-and-out of the *magic circle* several times in a single encounter. In order to find clues to the operational mechanics of ***Forty-Three***[46] players will often glance back and forth between the game screen and the animations, sometimes even changing the tapes, and in doing so are constantly re-informed of the game's *meta-narrative* and of the narrative relationships between the spaces shown on the tapes and those shown within ***The Memory Room*** and ***The Gutter Space***. Some players recognized spaces in the computer-game seen previously on a television and tried to locate its corresponding tape. This in turn encouraged some players to search for spaces within the computer-game that were previously seen on a television.

The designed *meta-game* also communicates an operational language of conventions to the player before she encounters the mechanics of the computer-game itself. Players instinctively insert tapes in to the virtual VCR-players in the computer-game as they have done so already with the physical tapes, eliminating the need for any sort of tutorial or instruction component in the computer-game itself.

The boundary of the *magic circle* is also being crossed between players. That is the *computer-game player* inadvertently pulls other less active players in to the computer-game. The mouse-and-screen interface is really a mouse-screen-*speaker* interface[47] and although the screen is experienced in a very solitary way, due to its size and position, the speakers provide a bridge between the passive and active experience of the computer game. The audio of the game, heard even from outside the room, crosses the boundary of the *magic circle*, becoming a part of the *meta-game* experience, as it broadcasts, to *passive viewers*, an operational depth to the computer-game.

The experience in general is shaped by its community as players watch, help and race each other to explore the world created within the *meta-narrative.*

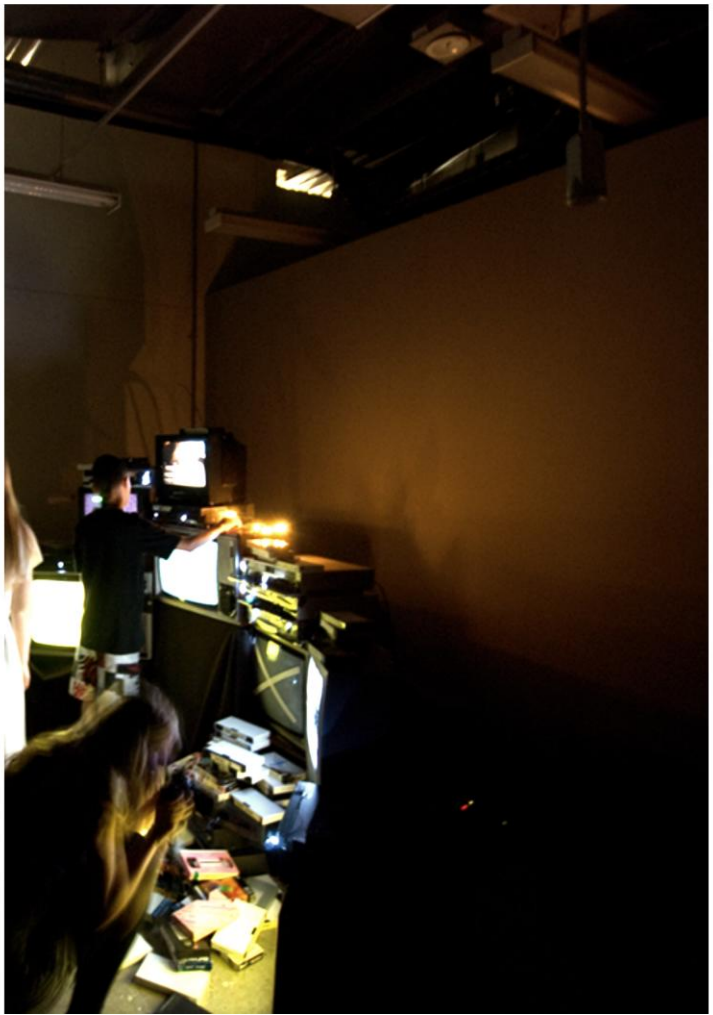
[45] Even if the *passive viewer* does not engage in conversation, simply 'being there' changes the way other players engage with the work. Players entering while only *passive viewers* are present will often either leave immediately or cause the existing player(s) to leave.

[46] Much like a player who might browse a website database while playing a game like *World of Warcraft* in order to find out how to complete a difficult quest.

[47] As the sound provides ambience and feedback to the player.


MALOUS INTRUSION
INTERIOR: WE
MOTIVATE ELEVATION
SIDE
MALOUS INTRUSION : SECTI
TEXTURE · INTERIOR
FRONT ELEVATION
DETAIL · BACK


High DEFINITION
ET
SONY
FRONT ELEVATION
MALOUS INTRUSION (SECTION A)
REAR ELEVATION



4.2. Conclusion

The exhibition was a success in so far as it tested some of the concepts in the body of the exegesis and brought to light some new ideas useful to computer-game design practice. Discussed below is a summary, not only of the research findings from the exhibition, but the entire project in general, with respect to practical computer-game narrative design strategies.

METANARRATIVE THROUGHOUT THE PROJECT

Primarily the exhibition was designed to explore ideas that arose in the early works and analyze them in respect to the taxonomies described in the exegesis body. The three main ideas were: *Nostalgia*/*trace*, *death*/*decay* and *return* (a term used to discuss the relationship between several ideas).

NOSTALGIA & THE TRACE

Nostalgia first appeared in some of the early works (not discussed in PREVIOUS WORKS) which were very introspective. It was decided early that the projects would not read as intended unless a way to express *nostalgia* in a general sense was found. Initial strategies even included trying to construct a birthday party with elements of many birthday parties of other people (treats, toys, games, etc.). It seemed that further abstraction would be more interesting and *nostalgia* was conveyed in a very inclusive sense. That is: the project almost became more about the intrusion of distortion and signal artefact than the content itself. The images were almost unreadable but the player got a sense of the retrospective simply by the saturation of a diverse range of abstracted symbols (e.g. old photographs, degraded surfaces, archaic technology). In this way the 'gaps', not only *within* the images but also *between* them, served as comic strip gutters, allowing the player to construct these narratives systemically from an abstract 'kit-of-parts'.

The entire thesis project served almost to define *nostalgia* in practical terms. Upon reflection it was apparent the role that the *trace* serves in *nostalgia.* The first steps usually taken to convey a sense of *nostalgia* are to resolve issues of accessibility. How can *nostalgia* be distilled so as to be read by *all* players. This project answers that question with a series of distorted symbols. This raises questions about *clarity.* How does *clarity*, especially in new media, serve *narrative emergence*? People are often disappointed when a book is converted in to a movie because the lack of clarity in the text often serves to enrich the narrative rather than constrain it. What does this mean then for *clarity* in computer games where objects and spaces can be examined even further?[48] A system of *traces* was used as a catalyst for narrative ideas, but care was taken not to dilute or contaminate the *'spatial-archetypes'*.

DEATH, DECAY & DEGRADATION

The inevitability of *death*, *decay* and *degradation* was an emotionally exhausting set of ideas to tackle. The project served as a sacrificial piece, almost an 'exorcism' of transitional personal development as I dealt with the inevitability of my own death objectively (but not devoid of emotion). But in a practical sense the project could be seen as a 'chrysalis' of sorts: a method to coming to terms with *death* in an examined and critical way. Adult themes such as this are often avoided in computer game design. The question "Why as an artistic medium, computer-games shy away from such concepts?" is beyond the scope of this thesis and will be covered in future research.

[48] Items can be picked up, the back of walls can be viewed, etc…

RETURN & THE HERO'S JOURNEY

The use of the term *return* here requires explanation as it is used as a sort of bridge between several ideas.

Stolen from the study of comparative mythology, *return* primarily alludes to the stage of a journey where the hero returns to her home at the end of a story. The perception of the hero at this time is usually changed significantly from the time of the initiation of the journey. That is: the hero has learned a lesson during the journey.

But the term *return* has a looser definition in this project as it draws parallels between the hero's journey and the strangeness of returning to a space of significance after a period of time[49] and the 'strangeness' of *nostalgia*.

RETURN & COMMUNITY

Also the *return* here is viewed from the perspective of others as the spaces are (re)visited by those previously unfamiliar with them. This served to blur the boundary between players' differing expectations of the spaces and reinforce the accessibility of the project by claiming that all players are one and the same (a concept that arises in most single player computer games but is often overlooked in critical analysis). All players simultaneously fulfil the same role in the narrative of the game and the community organism performs as a collective consciousness that provides agency to the game. This design strategy is largely un-used by commercial games due to the solitary nature of the medium and the accessibility of the medium's platform. Players will seldom meet in one place, communicate operational habits and exchange ideas about a game because it's easier to stay at home and use your *own* computer or console. In this way the community of ***Hiding in a Hollow Tree*** is more important than the community in a typical computer-game, but as it was designed to substitute the current community forums (web-sites, LAN parties, persistent server statistics, etc…) a question is formed as to the importance of the immediacy of community communication and interaction in the computer-game medium. How can community interaction be exploited within the digital realm to simulate the kinds of interactions found during ***Hiding in a Hollow Tree***? This is a primary area of interest for future study.

COMMUNITY ORGANISMS

Consideration of the behaviours of game player communities is becoming increasingly important to designers[50], although the purpose of this shift is very clearly in response to trends in the gaming habits of the wider community (i.e. the acknowledgement that those previously considered 'non-gamers' actually *do* like to play games). I suspect in most cases that any interrogation in to the subject by commercial industries can be accredited to the pursuit of profit, but there is also an opportunity to allow communities to enrich the narratives of games in a far more organic, but still controlled, way[51].

[49] Such as a childhood home.

[50] As games start to incorporate achievement systems, online data bases and persistent statistic tracking.

[51] As with the ***Whirlpool*** precedent.

CLOSURE & EMERGENT NARRATIVES

As with the ***Closer to God*** precedent, the suggestive nature of the installation's aesthetic[52] is intended to allow an explicit but broad interpretation of the game's narratives. In this way ***Hiding in a Hollow Tree*** uses *closure* as a non-linear story telling device. In reflection, player responses were very much in line with the main ideas behind the story even in unexpected ways.

The VHS technology allowed for many artefacts to enrich the narrative of the project and enforce the archaic motif. Perceived distortion or data error caused by the instrument used in the observation, in this case VCR's and televisions, suggested *decay* and imprinted a *nostalgic* quality on the drawings. This intuitive design choice allowed appropriate *emergent narratives* to arise organically from player interpretation. One player drew parallels to the scene in *Blade Runner* (Scott, R., 1982) in which the protagonist investigates a crime scene using clues left behind in a photographic recording of a space. Although the specifics of this *emergent narrative* arose quite accidentally, the 'kit-of-parts' from which the player was able to reconfigure, were crafted to produce an association aligned with the *trace* and the inevitability of *death*, one of the game's, and the movie's, primary themes.

Some players commented on the way the space feels like it is "in a coma", enforcing the concept of *death*, and demonstrating the emergent nature of the game's systemic narrative structure.

DESIGNING OBSCURITY

A comprehensive study of the responses to the ***Anomalous Intrusion*** within ***The Gutter Space*** was difficult to ascertain due to the brevity of the occupation of the space[53]. The ***Anomalous Intrusion*** was designed to emulate no one particular existing thing. This strict design strategy carried through the entire production process (the shape of a fire, which moved like a machine, and hid like an animal) providing a sense of eeriness, otherness or alien-likeness, so most apparent player responses were purely visceral.

In comics, neighbouring panels usually represent the passing of time or a change of point of view, but the *'panels'* in the installation project[54] can be seen as either the passing of time, the change of space or dimension, or perspective.

One major difference in purpose however is that the spaces described in the *drawings* are explicitly different to those shown in the playable environment snapshot (and in fact they differ slightly from tape to tape), forcing the viewer to project their own mental image of the space. The *drawings* are seen as a way to provide simultaneously *narrative descriptors* and 'neighbouring panels' to the *playable environment snapshot*.

[52] Noticeable in the abstract photographs on pages 39 to 47.

[53] Most players didn't 'unlock' the space at all. Some did not witness other players unlock it either. Also once unlocked, the avatar only teleports to ***The Gutter Space*** for approximately two minutes before the game resets.

[54] The visible symbols and artefacts.

PRACTICAL DESIGN STRATEGIES FOR OLDER TECHNOLOGY

Designing for older technology raised questions about the inherent strengths of new media. Movies have always made people feel and think, why then is it important that the technology on which it is viewed continues to 'improve'? One of the strengths of designing on television is that forms and colours become bolder, stronger and easier to discern. They *have* to be or the technology will blur and distort them beyond recognition. Although this was actually the intention of ***Hiding in a Hollow Tree***, to distort and blur the images, the exercise emphasises a previously unseen advantage to designing on low-definition television. Becoming the practical focus of immediate future works, this idea brings to light pragmatic observations of accessibility as the platform coverage in which the game can be experienced is expanded[55] but also further questions on the importance of *clarity.*

THE USE OF ARCHITECTURAL CONVENTIONS

Initially the project was intended to read as an architectural project. This is where the term *'drawings'* came from for the title of the animation component of the installation. Although these conventions served their part during discussions and planning, they were not as useful to the critical analysis of the project as initially assumed as they did not assist in the explanation or examination of the components in any significant way. This is indicative of my own drastic shift in the perception of games as a medium.

One of the biggest steps in the project was when I started to view games as systems, as opposed to linear experiences. Games *are* linear experiences, but of *non* linear systems, a true and deep understanding of this concept was not fully realised until the final two semesters. This is an example of the difficulty of formalizing new media and the importance of future academic study on the topic of computer-game theory.

GAMES, SPACE & NARRATIVE

In 1996 game designer Chris Crawford wrote "We computer game designers must put our shoulders together so that our successors may stand on top of them." This quote is appropriate to the closing of this document as it very poetically illustrates the transient nature of computer-game theory, a still relatively infantile discipline. In truth, the ideas covered in this exegesis, at times, seem disparate, but the 'teasing-out' of ideas relating to computer systems and narrative are important right now as before our shoulders can be stood upon… We must first line up.

If this document fails to redefine computer-game narratives, it at least attempts, in earnest, to *re-frame* it from a perspective of spatial design, useful, at least in-so-much that it is an exchange of ideas, to those standing further down the line, and vital, as it attempts to rationalize complex theories using a specific practice, to those who wish to stand right next to me.

[55] Older technology can 'run' and display the games allowing more people to view and play them.

If the true strengths of the gaming medium are yet to be unveiled, if contemporary practice can lead us in to a new era of narrative systems, if we as players can still teach so much to the medium, to each other, to designers, and I speak now to not only other spatial or computer-game theorists and designers, but also to my future self…

The proverbial ball is, as they say, in your court.

The next move is yours.

Pick a weapon.

Choose your character.

Assemble your party.

Add to the journey that started somewhere deep in the forest, hiding in a hollow tree, waiting for its story to be told.

... and so I close, realizing that perhaps the ending has not yet been written.

- Atrus, *Myst*.

5. REFERENCES

What follows is an exhaustive *bibliography* of all references, an *annotated bibliography* outlining some ideas removed from the main body, a complete *list of games cited* throughout this document and a *table of figures.*

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5.2. Annotated Bibliography

The following annotations are more of sketched ideas than summaries of the references but an insight to the philosophies behind the thesis can be obtained by getting an overview of the works relevant to the project.

Computer game

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Noted for its minimalistic approach to HUD design. Questioning interface is an important part of my project.

Beksinski, Z. (1998). *The fantastic art of Beksinski.* Morpheus International.

Beksinski: Amplification Through Simplification

Ambiguity can play an important role in suggestion and Beksinski's portrayal of ambiguous textures influences my work both as a visual reference and at a design philosophy level.

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From hero to villain, Campbell's work, including his book, *The Hero with a Thousand Faces*, and his more recent, *Mythos* lecture series, exposes the anthropological, philosophical and psychological origins of mythological characters and stories. The works cover broadly, and comprehensively, all the *known* forces that influence the mythological journey but, in my opinion, most astoundingly, the basic and universal psychological human desire to create the monomyth[56] that stems from the *collective unconscious*[57].

His methodology is grounded in historical research and focuses on empirical findings rather than philosophy, and in later lectures he takes references from a broad variety of fields of study.

Informed by Campbell's book *Hero with a Thousand Faces*, George Lucas re-wrote and revised the screenplay for *Star Wars: A New Hope*

[56] The standard path of the mythological adventure of the hero, referred to by Campbell as the *monomyth*, is a common formula applied to the comparative study of myths. *The Hero with a Thousand Faces* p. 30.

The word *monomyth* is from James Joyce, *Finnegans Wake* (NY Viking Press, Inc., 1939), p. 581.

[57] The *collective unconscious* is the part of the lower psyche, in the *unconscious* (or *subconscious*) thought, where all humans, regardless of culture, share *elementary ideas*. Local influences or *folk ideas* aside, these *elementary ideas* help create a global affinity with respect to myth and help to formulate the *monomyth* formula mentioned above.

The terms *elementary ideas* and *folk ideas* come from Adolf Bastian's work on anthropology, "Jung's idea of the "archetypes" is one of the leading theories, today, in the field of our subject. It is a development of the earlier theory of Adolf Bastian *(elementary ideas)*..."

Campbell, Joseph. The Masks of God: Primitive Mythology, p. 32. London: Secker & Warburg: 1960.

C. G. Jung refers to the *elementary ideas* as *archetypes of the unconscious*. Words I use, in varying combinations, often in this project.

which has served as a personal 'Bible' throughout my own youth. This is initially what bought me to Campbell's work and what sparked my interest in it. His research into Jungian theory and the study of dreams informs my current work which deals with subconscious (and possibly also lucid state) symbol recognition, representation and manipulation.

"Myth comes from the same zone as dream... from the great biological ground, whatever it may be. They are energies and they are matters of consciousness." (Joseph Campbell, 2003, p.129)

One of the most compelling things about the hero character is that they stand on a knife's edge. On one side is the path of virtue, on the other is the path of tyranny[58]. Through Campbell's findings, we can see the *archetype character*, from *hero* to *villain*, as a model to help us understand a concept hidden in our own lower psyche[59]. For centuries we've been decoding and re-assimilating the ideas presented to us by the *archetype* through common media types (novels, poems, movies, plays etc…) however we've been heretofore in a relatively passive state of engagement. Although traditionally only as children do we embody the *archetype* by way of role-play (sometimes with the aid of *avatars* in the form of small toys), it is becoming increasingly common for us (humans) to engage with our *archetypes* in later life by engaging in the act of game-play. Whether it be a *pick-a-path* story book, or a complex *massively multiplayer online role-playing game (MMORPG* or *MMO* for short) we are effectively in a situation where we can re-project an *archetype* over the projection from the *elementary ideas* or *collective unconscious* that already exists.

Faced with Campbell's work, and the work of those before him, I cannot help but find more unanswered questions and obvious failings surrounding the concept of the 'hero' in computer games. These works caused me to query: if the hero is a manifestation of a part of our own lower human psyche, how then do we embody this digital hero manifestation without compromising it's significance.

Campbell's work provides me with a starting point to interrogate the idea of the hero path with respect to computer game design[60] and opens many doors to ideas of mythology and the hero that I look forward to exploring with my own work.

Computer game

Chahi, E., (1991). *Another world.* Delphine Software International.

Eric Chahi's Amiga game *Another World,* with its simplified and stylized visual and aural content, is a seminal piece of personal computer game history for several reasons.

Chahi: Creativity & constraint

Another World was the first computer game to use vectorized character animation. The main character, *Lester*, was rotoscoped using digitized

[58] Paraphrased: Iain McCaig. *Visual Storytelling* (Gnomon Workshop, 2005), DVD, pt. 4, chapter. 1

[59] Campbell, J. *Mythos: Lecture One: Psyche and Symbol*. (Acacia Studios, 1996), 0:11:20sec

[60] See literature review *Bioshock* (Bioware, 2007), game

recordings of his younger brother which were then stored on the disk as vector, as opposed to bitmap information, information thereby reducing the amount of storage space needed for the entire game.

Thriving creativity under medium constraint is of interest to me and is something that I consider in my own design processes.

Chahi: Amplification Through Simplification

No dialogue, simplified characters, objectified backdrops, no HUD or text during the game, Minimalist use of music.

Chahi: Milieu as a narrative device

Constant sense of danger. Segue in to alien spaces with semi alien introduction.

Chahi: Good Graphics vs. Artistic Direction

More than other popular media, such as film, games are often assessed on their technical ability rather than artistic integrity. Games are often merited for what reviewers often call "good graphics", perhaps due to its easily quantifiable qualities (number of shaders, polygons animations etc), but seldom on art direction. I find this tendency interesting and ask; If games have always been able to produce compelling and meaningful game-play experiences, why then do player's find it so hard to engage with games that lack technical visual finesse?

Music album

Chancellor, J., Carey, D., Jones, A., & Keenan, M., J. (1996). *Ænima*. Volcano.

Tool's albums Aenima, Lateralis and 10,000 Days, in particular the bands use of simple patterns and vibrations to build complex compositional relationships (also worthy of note is the band's use of simple but complex mathematic equations in song composition).

Keenan: Art as a way to heal & grow

On growing up and becoming less angry, Keenan, the lead vocalist, also states in an online interview (MTV 2003) that:

"Once I've record it you can just go buy the record… If I can't heal from my art, then how can you heal? I guess I could repeat myself but what's the point of that?"

Tool's ability to remain humble and self critical through their musical career is a constant inspiration to me.

Tool: Mathematics & Art

Tool has been described in popular culture as being part of the *psychedelic math metal* genre. Employing mathematical structures in their composition and scientific theories in to lyrics and design philosophies I find extremely interesting and I hope to explore the relationship between practical sciences and artistic expression in my own work.

"The melody is what I gravitate to—and it's my job to listen to what's happening when those guys go down these staccato, rhythmic, insane mathematical paths. It's my job to soften it and bring it back to the center, so you can listen to it without having an eye-ache. [Laughs.]" (Keenan, 2006).

Keenan: Collaboration

The tool band members are reported (Burgess, 2006) to utilize humility and open mindedness during the collaborative development process, keeping the creative process fluid and unchained to preconception.

Keenan: On Words and Art

Being part of a rock band that relies on vocal content in many of their songs, Tool remain critical of the use of words in art.

"Reading is more of a left-brain process, and listening to music is a right-brain function. And the right-brain function is far more emotional and has softer edges, so when you first hear the album, you should hear it and feel it. When you start "reading" it, then you're thinking it, and you rob yourself of that initial impression of how the sounds affect you. [Laughs.] I'm going to burn some sage right now—I'm about to burn some incense for this conversation. But seriously, I believe that when you go into a gallery or a museum, the most powerful pieces are the ones that don't have the words in the corner that distract you from the larger piece. You know, if the Mona Lisa had "Eat At Joe's" in the corner, that's all you would remember." (Keenan, 2006).

The psychological effect of words, especially in game HUD interface, is an interesting point to consider and very few games, such as *Peter Jackson's King Kong* (Ancel, 2005), have interrogated the use of text and reading during active game-play and its effect on the emotional response of the player. I hope to explore this area in depth in my own work.

Computer game

Chin, J. (1997). *Star wars, dark forces 2, jedi knight.* LucasArts.

I mention *Jedi Knight* because it made clever use of an already vast collection of musical pieces in a similar manner to the *zone theme* technique. However with *Jedi Knight*, the track played was dependant on the game state, typically the combat state, as opposed to the player's current location. That is to say, when a player, for instance, engages in combat with an enemy, the music intensifies to counterpart the game mechanic. As a side, I should say that this is a first person shooter game and that generally speaking, players would spend less time in one sitting on a game such as this. This is important because it is doubtful that such an intensity can be maintained on a game like *Diablo 2*. Nevertheless, it worked extremely well in this game.

Tapping in to an already rich established language is part of using simplified symbols and suggestion and relates to the idea of community of space.

Corneliussen, H., G., & Rettberg, J., W. (2008). Digital culture, play and identity. In Torill Elvira Mortensen (Ed.), *Humans playing World of Warcraft : or deviant strategies* (pp. 203-224). MIT Press.

In this essay Mortensen discusses some of the strategies players engage in that are considered, by other members of the gaming community, to be deviant but suggests that the current definition of deviant strategies is problematic in the context of computer gaming.

Mortensen: Subjectivity of Game Play Norms

"To a raider[61]*, role-playing is a deviant strategy."* (Mortensen, 2008)

The first problem with defining deviant game strategies comes from the subjectivity of game norms. With a game as complex as *World of Warcraft*, many players have different ideas of how the games is supposed to be played. Some consider role-playing to be the most meaningful part of game-play while others prefer to kill other player characters for example.

In this respect all players have their own definition of game deviance. Deviance relates to emergence and therefore emergent narratives.

Mortensen: Real world deviance vs. game deviance

The second problem with defining game deviance is that the definition deviant computer game strategy differs significantly to real world acts of deviance.

It is common and natural for a player to test and push on the boundaries, or rules, of a game to test its limits (I argue that this is the nature, and an inherent strength of, the game medium) but in the real world a person that constantly stretches the boundaries, or laws, is considered a deviant.

[61] A *raider* is a player that often takes part in *raids.* A *raid* is an organized attack on a particular dungeon at the end-game (or highest level) that usually takes between 2 and 5 hours. Raiders are considered the most hard core type of gamer.

For example a game player will sometimes see how far they can push they're character until it dies or is stopped, usually by a change of code, their exploitation an unfair part of the game and to many this is considered normal game-play.

A burglar is considered outside of normal society by almost all if they take pleasure in breaking the laws of society. I suggest that there is subjectivity here too which relates to a person's moral standpoint on the severity of the social deviance.

Mortensen claims that the major difference between real world deviance and game world deviance is that, in the game world deviance comes from a lack of regard for the rules whereas real world deviance comes from the exhilaration of breaking them.

Mortensen: Code is rule

It should be noted that in the real world law is law, but in the game world rule is law. But rule is defined by code, and code is fluid and ever changing, which adds more complexity to the problem of defining game deviance.

Mortensen: The language of game interface

As an avid gamer, familiar with common game-play mechanics and the language of computer games, it's easy for me to overlook immediate concerns of presenting and communicating the gaming medium. I will explore the idea of game deviance and game world subversion for two reasons:

- Improve my design communication skills in my chosen medium.

- Find ways to bring game design projects out of the game world and in to a more accessible and formalized art form capable of being read as a stand-alone practice not just as in the context of computer game design.

One strategy to employ in the interrogation of formalized game projects is engage in a rigorous questioning of user interface. Recent developments in interface by *Nintendo* have caused a small part of the gaming community to consider interface in more depth. I hope to, in my project, push on the boundaries of game-play interface by first analysing the existing and emerging technologies of user interface.

Film

Kaufman, C. (2008). *Synecdoche: New York.* Sony Pictures Classics.

This becomes a key text in relation to the interrogation of narrative structure as discuss in the primary research question.

Online Interview

Kaufman. C., on Syndoche, New York, (Angle On interview, WGA.org.

http://www.gointothestory.com/2009/01/video-interview-charles-kaufman.html

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Charlie Kaufman talks about the way in which he tries to put as much meaning and symbol in to his screenplays as possible:

You could view the same piece of film on different occasions and have [a different experience of] it.

This saturation of meaning allows for different people to experience the movie in slightly different ways and for people to experience the movie differently at different times of their lives. So if the movie is not changing, but the experience is, what then is different about the viewer (whether they be the same person viewing the movie twice, or a different viewer altogether) that makes the experience different? The summed psychological traits gained from a person's experiences. So then even by watching a movie twice in a row, the second viewing is altered by the psychological effect from the first viewing.

McCloud, S. (1993). *Understanding comics.* Harper Perennial.

Scott Mcleod's book *Understanding Comics*, especially his analysis of symbolism & signification.

McLeod: Amplification Through Simplification

McCloud describes the idea of amplification through simplification. This method is used by many a cartoonist and is, as the name suggest, the method of giving only enough visual information to understand the basic premise of a form allows a player to project meaning and emotion in to the game world. This technique, known as *amplification through simplification* is used by graphic novelists all the time (McLeod, 1993).This obviously raises questions about how far one should go to simplify, or conversely elaborate on, a form in order to evoke the appropriate response. Where do you draw the line? What method can we apply to know where to draw the line and why? And who are we trying to reach? Will different people of different backgrounds read things differently? If so how do we address the issue of differing projections by different people? Do any of these things need to be addressed at all?

In some ways this is discussed in ***Modelling Choice,*** as simplifying representations helps to isolate parts of it, (p.21) and

Closure**,** as simplifying representations allow for a more accessible possibility space of interpretation (p.19).

McLeod: Gutters

[Comics are] "A medium of communication and expression that uses closure like no other" (McCloud, 1993, p. 65).

In his book, *Understanding Comics,* Scott Mcleod discusses the use of closure in mediums such as film and television illustrates some of the ways comic artists exploit the reader's ability to imagine situations based on past experiences using the gaps in between panels (gutters).

I'm interested in what happens when the boundaries of the panels are stretched slightly into the gutter space. What would you catch a glimpse of if those black lines around the scene were bent?

I should note that I have no interest in dissolving these boundaries, or the gutters, entirely as the strength of the project (as with many others) is in what is not seen. I merely want to explore these boundaries and perhaps find new ways to exploit their power.

Computer game

Miller, R., & Miller, R. (1993). *Myst.* Broderbund Software

Robyn and Rand Miller's story driven games *Myst* and *Riven* and their use of in-game narrative as a tool for meaningful play and player reward and clever use of in-game sound make them an important piece of gaming history.

Myst: Narrative

The *Myst* series uses story as reward system, encouraging players to find the next clue and unravel the mystery. Prior to this series most adventure games centred on classic story arc devices such as conflict or injustice, *Myst,* at its core, is a milieu story and the player's initiation into the game world fuels a desire to play. Cleverly the game *Myst* doesn't ever actually end, the player unravels all the mysteries the game has to offer and then the player is free to roam the game world forever.

Riven transforms the catalyst for the story development in to a restoration of order and begins literally where the last one didn't end.

The Miller brothers spent the development of these first two games questioning the idea of narrative and game reward systems with rigour with award winning results and although the games, *Myst* in particular with puzzles that seem to lack contextual relevance, have dated, they are still critically acclaimed as two of the best games in history holding the title of best selling PC game for 9 years. (Walker, 2002).

Myst: Soundtrack

Myst's soundtrack was as important to the overall game experience as the images on the screen and it used the *zone theme* technique. In this game there were many tracks and none of them were used in more than one zone of the game. This meant the story, or at least the feeling behind the story, could be told through the music as well as the visuals, ambient sounds and sound events. Also another way Myst utilized themes, is when it came to the character spaces. In Myst there is an absence of characters. The player is repeatedly entering rooms owned, and normally inhabited by, the main characters, but without their presence to cue an understanding of the space.

Seeing as there are several main characters in the story, Cyan avoided confusing the player by adding theme styles to the tracks. This way when you're in Character A's room in World B, you are reminded of Character A's room in World A. Here the music serves to assist the visual story telling.

Broderbund: Development Ethic

The Miller brothers' willingness to create an interesting gaming experience under technological and resource constraints, and rigorous design criticality, has showed through in the results and remain an inspiration to me 15 years after their first game release.

Computer game

Presto Studios, (2001), *Myst: Exile*, *Ubisoft.*

Exile: Entrainment

As a player of *Myst: Exile* (2001), you are given a book by *Atrus*, a key player in the game's narrative. This book, as he informs you, holds clues to solving puzzles in a 'puzzle world' (referred to in the game as a 'lesson island') known as *J'nanin*. Without time to explain why, *Atrus* asks you urgently to enter this puzzle world alone, with no means of return. Built up as being a long time 'friend' of 'yours', you have no reason not to trust *Atrus*, and so you enter this world holding nothing but the clue book and *Atrus'* diary, which he hands to you just before entering the world. From this emerges a logical rhythmic process of: *discover puzzle – open inventory – open book – search for clue – solve puzzle*, which not only helps to solve the puzzles in the book but also puzzles *not* in the book. [62]

Exile: Narrative context

Continuing with the *puzzle-island* scenario an interesting thing happens when the game pretends to interrupt these natural rhythms. Through play you learn that another character, *Saavedro*, has been trapped on this *puzzle-island* for many years, and that one of his goals has been to escape. He also informs you that, despite years of study, he has found the puzzle that allows you to escape the island, to be 'unsolvable'. At the end of the game *Saavedro* snatches the clue book and, upon studying it, informs you that it holds no clues to the final puzzle and that you are both "stuck here forever".

Immediately you: *open inventory – open book – search for clue – solve puzzle.* The diary being the only book left in your inventory, the natural rhythm provides you with your solution. Furthermore, although it is never explicitly said, there is a clue in the game's narrative as to how to solve the last puzzle. Within the narrative context, the player can assume that if the means to solve the puzzle are not within the world, that you must have brought it with you.

Salen, K., & Zimmerman,E. (2004). *Rules of play*. MIT Press.

[62] For the sake of brevity, this is not an entirely accurate representation of the actual game mechanics and narrative.

Katie Salen and Eric Zimmerman's seminal gaming book *Rules of Play* which touches on many theories of gaming not just computer gaming, and references many other texts (some of which are covered in their follow-up book The *Rules of Play Reader*).

Salen & Zimmerman: The Immersive Fallacy as a Research Phenomena

Being an *avid* and *long* time gamer I refrain from over validating the 'immersive fallacy' argument. Its complexity is far beyond the scope of this document but I argue that *some* pleasure *can* come from a sensual transportation in to an illusory, simulated reality.

The preceding sections all suggest that meaningful play cannot be attained through discreet and complete simulations within the game but rather through clever *meta-communicative* use of *meta-narrative* signifiers. By definition this seems to be in direct opposition with the term *immersion*.

Computer game soundtrack

Uelmen, M. (2000). *Diablo 2.* Blizzard.

This small essay is a brief look at the effect of a game's soundtrack on the player's game experience using the example of *Diablo 2: lord of destruction* as a key text on this subject. It's important to note that I do not cover environmental sound events, game mechanic sounds (interface sounds) or ambient environmental sounds in this essay. Although references are made to these sounds, I have chosen to isolate the musical soundtrack of a game to analyze and note on its relevance to my own project.

Uelmen: Repetitiveness

One of the problems faced when designing music for an MMORPG, is that, due to the amount of time spent in a particular area, players will often hear musical pieces over and over causing them to become more of an annoyance than a counterpart to the visuals.

One game that manages to avoid this quite well is *Diablo 2* and it's expansion pack[63] *Diablo 2: lord of destruction*. But why does the soundtrack on this game work so well?

Uelmen: Inconspicuous Loop Seams

One thing to note about the music for *Diablo II* is the 'seams' for the track loops.

When a continuous piece of music is used for a game we call this a *track*. Several tracks are usually used in a game. Often each zone or level has a track associated with it. In some games the tracks loop. This can cause problems when you hear the end of the loop. Unless the loop is written cleverly, these loop points, or seams, often draw attention to themselves and thus *away* from a meaningful game experience.

The soundtrack for *Diablo 2*, written almost entirely by Matt Uelman, is written in just such a way. Whether it be a simple fade-in volume envelope, or a cymbal crescendo, all Uelman's tracks start with very unobtrusive introductions. This ensures that it is never obvious to the

[63] An expansion pack is a separately purchased product which adds to the content of the game usually making improvements to existing elements and extending its re-playability.

player whether they are listening to the start, the body or the end of a composition.

Uelmen: Kinetic Percussive Rhythm

Much like a typical jazz track, continuous looping percussion rhythms are seldom used. If they are used, the beat emphasis is usually kept irregular so as not to appear to be a loop in itself. This makes for a very kinetic composition that feels like it's ever changing and developing. This leads in to the next technique I've identified…

Uelmen: Unexpected chord changes

Throughout the track, chord changes are used almost as transitions into separate musical pieces. When this is done, the background music appears to be made of several tracks instead of just one, and gives the player a sense of *unravelling* of story or experience. Also this means that a single piece of music doesn't play for long enough for the player to recognize patterns in the composition.

It is important to note that this technique is used throughout the track not simply between the end and the beginning. Obviously creating a single chord change would draw attention to the seam.

Uelmen: Subtle use of Incidental Melodies

Now I say *melodies*, but really what I mean is anything but. Therefore, henceforth I will refer to them as *discordant sounds* or *incidentals*. Another way to refer to them would be *impulses* as they are usually just sound *events*[64] that are *baked*[65] in to the track. However the word *impulse* implies that the sound event is short and sometimes that isn't the case so I will use that term sparingly.

These incidentals are really just sound effects that don't necessarily compliment the melody or rhythm of the piece. In *Diablo 2* these incidentals happen throughout the track to:

- break the flow of the piece
- act as a segue in to another piece

What is important to note is that these incidentals are not references to anything else happening within the game. That is to say they are not sounds from the environment or anything else that the player encounters. They are still *music* and therefore are open to interpretation. I think if this were not considered, and sounds were used from say, a voice from a game character, that there is risk of the player being drawn from the game experience.

Uelmen: In-Game Composition Relevance

The music obviously has to be relevant. If it isn't the player will be drawn out of the game experience, perhaps even put off playing the game.

[64] A sound event is a sound that is triggered by the player or by a scripted event in the game. I do not refer to sound events here but use it as a way to explain it's function in the composition.

[65] The term *baked* means that the sound is actually part of the music track and cannot be silenced or triggered at another part of the composition.

"At first we didn't want to have music, but we experimented with some ambient soundtracks and we were surprised. It didn't sound like Super Mario Brothers… It worked." (Miller, R., & Miller, R. On the *The Making of Myst*)

Uelmen: Zone themes

As with many games, *Diablo 2* employs what I call *zone themes*. Each zone has a different feel to it, and, as you would expect, a different aural aesthetic. *Diablo 2* handles this aspect of soundtrack design quite well and allows the gamer to quickly identify where he/she is when entering a zone. But perhaps to explain it a little bit better I will refer to an example where this fails.

World of Warcraft, designed also by *Blizzard entertainment*, employs a similar technique. However the zones are much larger and therefore are split in to a larger number of smaller zones. Unfortunately, obviously due to production reasons, there aren't enough musical pieces to assign one to each zone. This means that when entering Zone B, the player is immediately transported to the aural '*soundscape'* of Zone A, on the other side of the game world. Note that of course the ambient sounds aren't necessarily the same but again, due to production reasons, the ambient sounds are also recycled in a similar manner. This means that a large portion of the aural *soundscape* is similar in Zone A and Zone B. Although this could be taken advantage of, if the designers *intended* to reference Zone A while in Zone B, I see no advantage, as far as creating a meaningful game experience, to recycling the tracks in this manner.

It is interesting to note in this scenario that the only notable difference in sound design of the two games, *Diablo* and *WoW*, is the size of the world which forces the system to fail for practical reasons. It could also be argued that the music itself isn't written well enough with respect to the techniques mentioned above.

Uelmen: Relevance

Blizzard has always produced game experiences to a very professional standard, but I still consider the majority of their work to be commercially motivated. Still, the environmental ambience of *Diablo 2*, in my opinion, is one of the most successful examples of player immersion to date. I hope critically analyze the environment design philosophies of *Diablo 2* and introduce relevant findings in to my own practical work.

Lecture
Wright, W., (2003), *Unnamed*, Stanford University,
http://stanford-online.stanford.edu/courses/cs547/030502-cs547-100.asx

Games: A Designer's Systems Medium

It is known that the behaviour of two planetary bodies can be written down completely in closed form. Nevertheless, it turns out to be impossible to combine the solutions of three two-body problems to determine whether a three-body system is stable. Thus, the essence of the Three-Body Problem resides somehow in the linkages between all three bodies… So here is a case in which complicated behaviour arises as a result of the interactions of relatively simple subsystems.[66]

[66] Casti, J., (1994), *Complexification: Explaining a Paradoxical World Through the Science of Surprise*, New York: HarperCollins Publishers, p. 40-41.

In my practice it has become apparent that the inherent nature of games to utilize the strength of systems design and management is difficult to avoid. Even the simplest game mechanics, of which I have placed in my project as, almost arbitrary, counterparts to the design of the environment, have proved to be mind bogglingly complex.

Wright: Meta Game

The term *meta-game* refers to the game as a whole, including all its parts whether internal or external to the formal structure of the game, and includes parts of the game generated by not only the game designers, but also those generated or assimilated by the game's community.

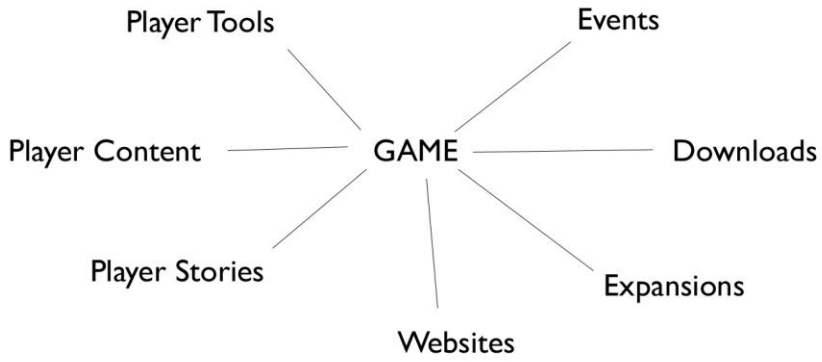

Figure 38, The Meta Game.

Although each player sees the *meta-game* differently[67], all of these things enrich the play experience in general, and are as much a part of the game's experience as anything that happens during game-play. But not all of the *meta-game* is related directly to narrative. The *meta-game* does however inform a games narrative in many ways. The meta-game for *Company of Heroes* would not, for instance, include the mini-series *Band of Brothers* but *would* include a *machinema* version of *Band of Brothers* created *using* the *Company of Heroes* engine.

More Examples
Community members write online stories, discuss lore or recount play experiences with each other. Game designers release machinema videos online explaining recent story developments, or throw dress-up release parties.

Designers have some control over craft of the meta-game, at least at the time of the games release. So too do they also have some control over the *meta-narrative* of a game.

Also giving 'external' instructions for the game introduces players to the *meta-game* and helps them to permeate the porous membrane of the *magic circle*, making them more likely to carry expectations from the *drawings* in to the game world.

Ware, C. (2004). *Jimmy Corrigan, the smartest kid on Earth.* Jonathan Cape.

Use of non linear story telling.

[67] 'Hard-core gamers' and tool users or makers would see it more wholly, whereas casual or 'newbie' gamers might only interact with one or a few isolated parts of the meta-game.

5.3. List of Games Cited

Another World
Delphine, 1991
Computer game

Blob
Traditional
Physical game

Bioshock
2K Games, 2007
Computer game

Centipede
Atari, 1980
Arcade game

Company of Heroes
THQ, 2006
Computer game

Diablo 2
Blizzard Entertainment, 2000
Role-playing game

Fallout 3
Bethesda Softworks, 2008
Computer Game

FarmVille
Zynga, 2009
Online game

Lotus Esprit Turbo Challenge
Gremlin Graphics, 1990
Computer game

Mass Effect
BioWare, 2007
Role-playing game

Myst 3: Exile
Ubisoft, 2001
Computer game

Prototype
Activision, 2009
Computer game

Riven
Broderbund, 1997
Computer game

Street Fighter 4
Capcom
Computer game, Arcade game

Super Mario Brothers
Nintendo, 1987
Console game

5.4. Table of Figures

All screenshots of games are taken by Ben Kenobi unless otherwise stated.

6. GAME DOCUMENT

It is not common for a single person to be involved in every department on a computer-game project. It was always my intention to focus on the design of an environment, a broad term in itself, and treat the design of the environment as a simulation of working in the art department on a game production.

In order to design this environment I first have to decide what kind of game, at least in a general sense, the environment would be part of. What follows are some ‘sketched’ ideas to assist in the design of the installation project.

6.1. Main Ideas

INTRODUCTION TO 'IN HIDING'

The game is called ***In Hiding*** and the ***Hiding in a Hollow Tree*** installation project is an altered portion of that game.

The game itself is not entirely resolved and a complete documentation is not provided[68], however information that needs to be considered in the design of the game's environment (key aesthetics, story ideas and core mechanics) are explained in the game document.

The game is designed to be read in several ways providing differing experiences dependant on the player's level of engagement.

MAIN THEMES

In Hiding is designed to run the player through a wide gamut of lament-like emotions surrounding 'nostalgia', 'death' and 'return'. The main character is even simultaneously presented as both dying and as spirit, who in the immortal world they occupy, is also running out of time (conveying a sense of mortality). Even enacting the core game mechanics brings the character one step closer to "passing on" from the game space for a place explained only as being "beyond" ("beyond" being a metaphor for the after-life).

This idea of the *Return*, refers to the act of returning to a place of personal importance, often marked by event or events (such as *childhood*), and I make loose relationships to the notion of the *return* in the *monomyth*[69] or *hero's path* and the *game quest.*

Traces left behind of these important events provide both a link *to* a memory and a distinction *from* it. Interestingly the return to a place marked by event is often strangely unfamiliar or alien. The installation project will explore this distinction between ***Nostalgia*** and the unfamiliarity of the return.

In this section I describe the game's *immersive environment* which is a three-dimensional digital interactive environment (similar to a game such as *Half-Life 2*). The environment is designed to provide the backdrop for meaningful play. *In Hiding* is described as a *first-person-puzzle-adventure-game with action, puzzle and role-play-game elements*[70], and the specific set of themes and aesthetics, core to the game, need to be considered in the design of the environment.

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[68] As discussed in the primary research question, game designers design player experiences only indirectly through the direct designing of formal game structures, the time required to allow for the testing, analysis and adjustments of the game experience is beyond the scope of this research project

[69] A term well known in popular culture, the 'standard' path of the mythological adventure of the hero, referred to by Joseph Campbell as the *monomyth*, is a common formula applied to the comparative study of myths. *The Hero with a Thousand Faces* p. 30. The word *monomyth* is from James Joyce, *Finnegans Wake* (NY Viking Press, Inc., 1939), p. 581. Used loosely in this project, I seek not to contest either for comparative mythology or particularism, but rather to focus on a small part of the hero's journey (the return) and draw relationships to other ideas covered in my project.

[70] The way in which the character develops and acquires skills and abilities is similar to the methods used in most role-play-games (RPG).

I feel that, if carefully implemented, entrained game actions can be used to introduce players to new ways of thinking or 'dealing' with real world psychological or practical situations at no noticeable cost to the game-play experience. To that end the game attempts to cause the player to examine life choices and reflect upon the greater questions surround choice and death.

I should not deny the educational and ethical implications of using the *tree* as an icon, especially in a time where sustainability and global environmental awareness are such an issue. I should note that in using trees as a symbol of sustainability and environmental awareness, I do not make a notable argument or analysis on the topics (at least not in relation to the project) but I do acknowledge and welcome the connotations the symbol carries with it.

NARRATIVE DESCRIPTORS

"In a world where things can change in a blink of an eye, and others remain unchanged forever."

- Tagline for "*In Hiding*"

This tag line, used in trailers, posters, advertisements, etc… situates the player within the realm of fantasy where the world can be altered instantly, almost magically but also it is not uncommon for some spaces or objects to remain intact or unmoved for an extended period of time, "forever". This theme of *change against consistency* serves two functions. Firstly; to break down the usual perception of linear time, strengthening the 'other-worldly' motif. Secondly; to heighten the ephemeral or fleeting nature of certain game-world elements as they are juxtaposed against the unchanging.

The following excerpt is from the back of the game box and each part is designed to both introduce the player to the type of game they will be playing, along with its core mechanics, aesthetic and narrative, and entice the player to play the game through dramatic devices.

"As far back as you can remember you've tended to the trees that inhabit this lonely world; protected them, mended them, helped them grow. But something is happening. The trees are dying, even those that still grow. Death comes slowly, and warning must be given."

As far back as you can remember you've tended to the trees: This line tells the player that they don't need to know anything about the player-character's past in order to play the game. Also the player is being assured that they are not necessarily to know who or what the player-character is when they start playing (as a 'normal' person would not spend their entire life, including childhood, tending to trees), and suggests that they might not be mortal.

…that inhabit this lonely world: Firstly; calling them 'inhabitants' hints at the trees having some sort of sentience but also informing the player that they can expect to spend most of their time without interaction with any other 'people'. N.B. These interactions may emerge later in the game.

Protected them, mended them, helped them grow: This line introduces the player to the core mechanics they will need to start playing the game. N.B. These mechanics will evolve throughout the game. The game mechanic used in the installation for instance allowed the player to interact only with TVs, VCRs and VHS tapes.

But something is happening: Mostly for dramatic effect, this line creates a tension for some sort of anomalous ("something") event that will only be explained if the game is played.

The trees are dying, even those that still grow: Firstly introducing the player to one of the key ideas of the game, death and decay, but also, by

explaining that some trees are still growing, offering a glimmer of hope to the player and informing the player that their actions are still meaningful in the game world (they can still perform the core mechanics).

Death comes slowly: Allows a player to feel like there is some sort of time-limit on their quest, giving urgency to their actions. Also it's part a fundamental questioning on the perception of living and the inevitability of death that the game is intending to get players to ask themselves.

…and a warning must be given: Introduces some sort of relationship dependency, suggesting that others are in danger and that the player has a responsibility to protect them, or, that in order to protect the trees, the player must find assistance.

AESTHETIC

Throughout the game a "VCR Tracking" visual effect is used. This effect is designed to emulate the visual artefacts of a VCR playing a VHS[71] tape. Although, due to time constraints, the *playable environment snapshot* does not show this effect, the *drawings* do. In the full game, this effect is often used for things like player teleportation, item highlighting, and puzzle system feedback. I use the term *VCR-tracking-effect* or *tracking-effect* when explaining *w*here this effect is used.

The types of events in which this *tracking-effect* is used are consistent throughout the game and are tied to the idea of *change*. The effect then becomes a metaphor for a VCR 'cut'[72] which is a cultural artefact of the game's meta-narrative. The effect will always either indicate an object can be manipulated or that it has recently been changed or added (the object alone will show the effect), or that something significant has changed in the world due to a player activated or timed event (in which the whole screen will show the effect) such as a teleport or the solving of a puzzle. The effect will not, for example, be used to inform the player that they are about to die or that they have just acquired a new skill. The purpose of this continuity is so that the player is never confused about what they can expect after seeing it, but the ambiguity serves to keep the player in a state of suspense or intrigue (they know *something* has happened, but often might not know precisely *what*) urging them to search for the notified event from the possible, starting with the likely, set of things that might have changed.

THE GAME MECHANICS

Core game mechanic: Written in brief, *In Hiding*'s core mechanic would be; *explore three-dimensional spaces and solve puzzles.* However the game's core mechanic is actually a compound activity composed of a suite of actions. I give a few examples below.

Examples of puzzle system mechanics:

1. ***Looking:*** As the visual impact of the spaces is paramount to the experience of the game, 'looking' at a particular feature will cause a 'look at' trigger event to initiate. Initially an immediate feedback response will trigger and then after a period of about ten seconds, a

[71] VHS stand for Video Home System, a video tape recording standard developed in the 1970s.

[72] When someone pauses while recording on to a VHS tape there is a brief moment where many subtle, but accumulatively conspicuous, artefacts appear on screen.

more mechanical reward will be offered with a much more defined feedback event signifying the termination of the 'look at' trigger. For this example I will use the fire-place. When the player looks at the fireplace it immediately ignites. This feedback event will not only signify that the fireplace is of relative importance but will also help to train the player to explore and look at more objects. Continuing to look at the fireplace will produce a sustained and gradually intensifying visual and aural simulation of static interference. If the player looks at the fireplace place for a long enough duration, the event will terminate with an immediate and somewhat jerky transition to the *Gutter-Space* (the *Gutter Space* is explained later), followed by a return to the puzzle space, accompanied by a short 'musical' piece. This particular use of the game mechanic is recorded by the game system. Most of the puzzle systems use this mechanic.

2. ***Exploring:*** Occupying previously unexplored spaces will unlock new puzzles in previously explored spaces.

3. ***Staying:*** Staying in a particular location for an extended period of time will trigger both a 'hint event' and in most cases be recorded by the game.

Puzzle system symbols and meanings: Most of the minor game mechanics consider the theme of nostalgia, aging or trace in some way. Utilizing these symbolic meanings would allow players to easily determine what they can and cannot interact with. There are around five mechanical puzzle systems that operate simultaneously throughout the game. Each puzzle system deals with a different type of reward and has its own set of symbols the player finds meaning for. For example; the items used in the puzzles that help the player unlock new areas, are easily distinguishable from the items used in puzzles that help the player survive a hazard or reveal a story node. These puzzle systems are mechanically and aesthetically linked in some ways, but at any point it should be obvious to the player the kind of puzzle a certain symbol or item is used for.

The rewards for these mechanics are discussed in relation to Hallford and Hallford's model of the four general types of computer role-playing-game reward types. I think *heuristic* is fitting, due to the intrinsic role-playing traits that come with designing structured quest narrative systems.

Rewards of Glory – Used in all puzzle types: Solving a puzzle will often reward the player with a non-game-mechanic, or 'cosmetic', reward. These rewards resemble what Hallford & Hallford refer to as *rewards of glory,* and are designed to provide the memorable moments of the game. These rewards would often be short, such as the visual VHS tracking animation overlay (as discussed in *Aesthetic* on page 81) and will serve as *feedback* for the game system providing not only emotionally meaningful moment but also acknowledging the player's achievements.

Rewards of Access – Puzzles about displacement: Several of the spaces would have been interrupted or intruded upon by the overgrowth of large trees. Some of these trees might block a door or might have broken a light switch. Players may have to find items that they can intuitively recognize as being related to temporal, spatial dimensional and perceptual displacement. For example; if a door is blocked by an adult tree the player may discover that by travelling to a past memory of the space they can bypass the obstacle because the tree had not yet grown enough to block the path. Or that by travelling forwards to an older memory the tree may have long since been dead. These particular mechanics are not in the exhibition piece due to their technical difficulty.

Rewards of Sustenance – Puzzles at points of interest: Some spaces in the game have a *Point of Interest.* In contrast to the majority of the game's

aesthetic, these offer aesthetically pleasing visuals that serve as emotional 'resting' places providing relief from the dark and grotesque decay of the surroundings. These *Points of Interest* also provide *Rewards of Sustenance*.

Although further mechanics are not elaborated on in this document, it's important to mention a few things:

- This section is by no means an exhaustive account of all game mechanics and reward types but it does explain the key mechanics and a fair idea of the types of mechanics that would be use in the game.
- That the symbols used in the puzzles would need to be carefully considered. If the symbols are too varied and numerous, the game may become an exercise in chance as players blindly interact with everything they see in the hope of unlocking some point of access.
- The symbols would need to be introduced at a relatively restrained rate. Players would be expected to arrive at the meaning, and therefore function, of many of the puzzles' symbols without further experimentation or training.
- The game avatar should develop over time to allow the player to build an emotional attachment to it. Because of this some puzzles not described in this document would provide *Rewards of Facility*.

How something is said is just as important as what is said, which is why careful consideration has gone in to how the game mechanics are explained avoiding words (to train the mind to be more receptive to emotional content). Any formal instructions are *outside* of the game system so people know not to expect words in-game.

6.2. Environment

ENTRAINMENT AND META-COMMUNICATIVE SPACE

The mechanics of *In Hiding*, like most games, introduces tools the player will use throughout the game in a controlled manner. The space itself needs to behave in a similar way and especially with respect to narrative. Upon entering the first space of the game, a player should be able to tell some important things about the game and the way it is played. How long will I spend here? What is my current emotional state? What or who am I and how much *should* I know about myself[73]?

Separate spaces should seem significantly different to allow people to understand that they are in a different space.

THE MOVING TRACK

Although the environment covers the entire visible and audible space of the game world, the space the player can actually occupy is restricted to the *Moving Track*. The player's movement is restricted so as to control the introduction and access of other game elements (such as items or story). The player is only allowed to occupy space that is near a tree (including all

[73] Interestingly enough, I suggest that games often over-look this simple inherent computer game strength. For example: *Prototype*, deals with an amnesiac protagonist (a commonly used computer game technique) in a very heavy handed and over explanatory way, as the game explains very obviously, in the first minute of play time, many details about the character and their situation, leaving the player with a frustrating sense of ill-information. If players are offered a more controlled stylistic representation of the narrative, they will often forgive the initial absence of story detail, and accept that the protagonist suffers from amnesia without the need of explanation.

attached branches and roots). This means that in order to move to another place players either have to find a tree that leads to it, or grow[74] an existing tree until it extends in to new territory. This restriction prevents players from using the movement controls to reach obviously inaccessible areas helping to alleviate player frustration. As the player strays from the *Moving Track*, the *VHS Tracking Effect* activates. The restriction to the *Moving Track* is also 'elastic'. The further the player gets from the *Moving Track,* the stronger the player will be pulled back to the track by the game's physics engine and the more violent the *VHS Tracking Effect* will be. The 'pulling away' from the *Moving Track* is later used as a narrative event.

As the game-play is very much procedurally orientated, the player will constantly have to manage risk and game economies in order to control game-space territories. As players cannot move too far from the trees they must grow the trees. If too many trees die, the player loses control of the game and play ends. This territorial conflict is not a difficult struggle to win (at most times, although some spaces will focus more on this struggle) and serves as a proponent for player-action even at times where embedded narratives are not being frequently discovered and will often lead to discovery of items and the acquisition of abilities or player-character survivability improvements.

The trees themselves follow the aesthetic of the game but they are very much a stylized version of trees. Although at a glance they seem 'tree-like' they are more accurately described as a status indicator for a modelled system. The modelled system is that of the growth and death of trees and is simplified in order to acts an effective model. That is to say they serve a similar function as an ammo indicator on a heads up display.

The tree trunk is persistent and provides feedback for the health of the tree. The branches are **clearly** separated out in to segments and the segment limit is always clearly defined by the game. The segments are seen as stylized representations of the modelled tree growth system.

ENVIRONMENTAL SOUND

Ambient sound communicates narrative identity. Where IS the tree (above the clouds) how *big* is the tree (massive – it's low drawn out creaking sounds describe the tree as being "massive"). Note that the environmental sound is crafted accurately for the *Hiding in a Hollow Tree* installation.

ROLE PLAYING ELEMENTS

The player will develop the player-character as time passes, acquiring new skills. Some of the skills acquired will help the player to manage the player-character's economies (such as health and items), some will allow the player to unlock new player-character abilities (such as the ability to move tree sections), some will make game-space navigation easier (such as the ability to move farther off the *moving track*, or increase the number of sections on a single branch), and some will assist in the management of territorial control (such as the ability to slow the decay of the trees, or the falling of branches). This system-like design choice is aims to create *transformative-play* strategies and *emergent-narratives*.

[74] Growing the tree does not take a normal amount of time. The trees grow from adult to fully grown in a matter of 'turns' which can be completed in several minutes.